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Fig.1

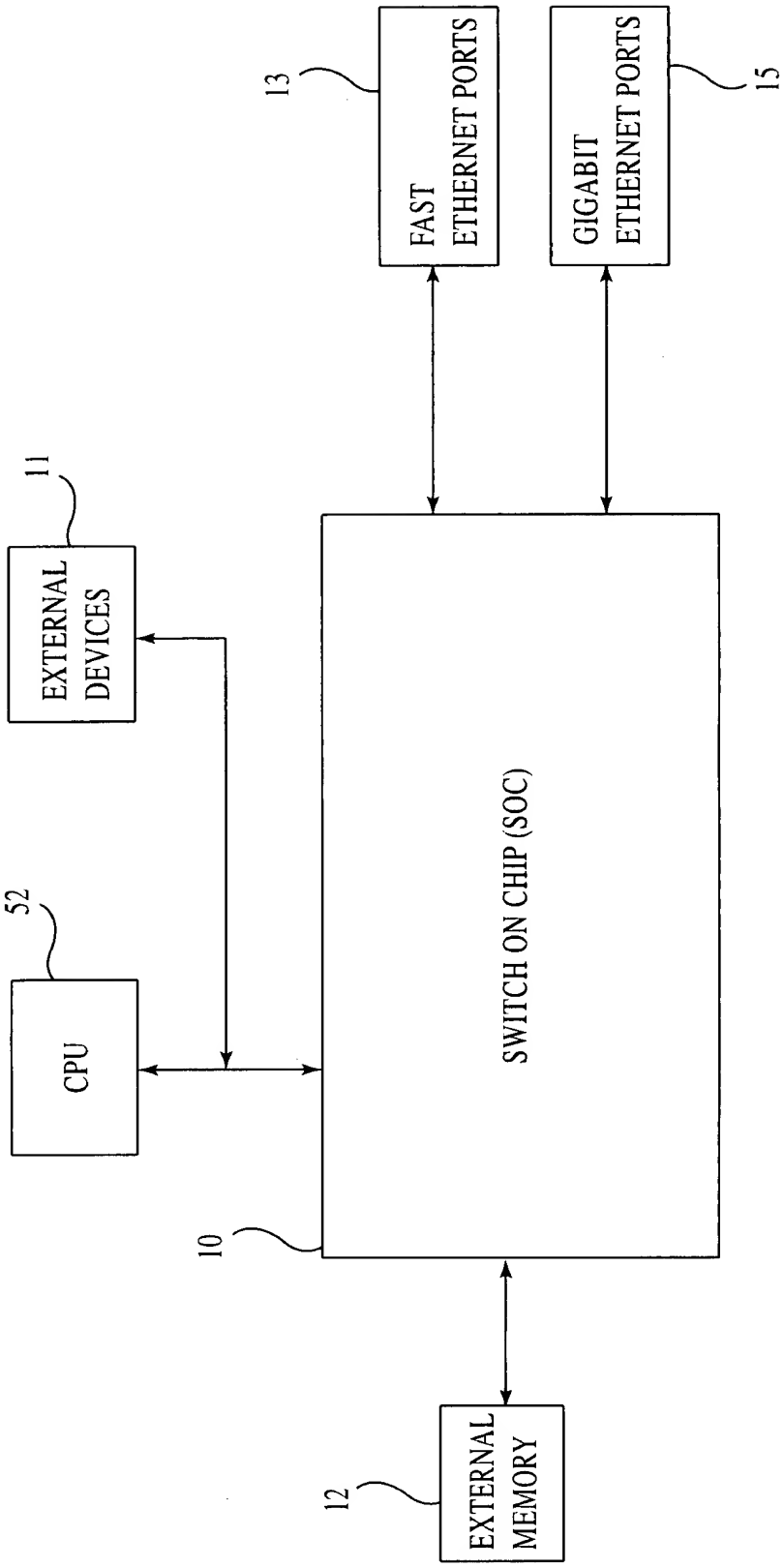

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Fig.2

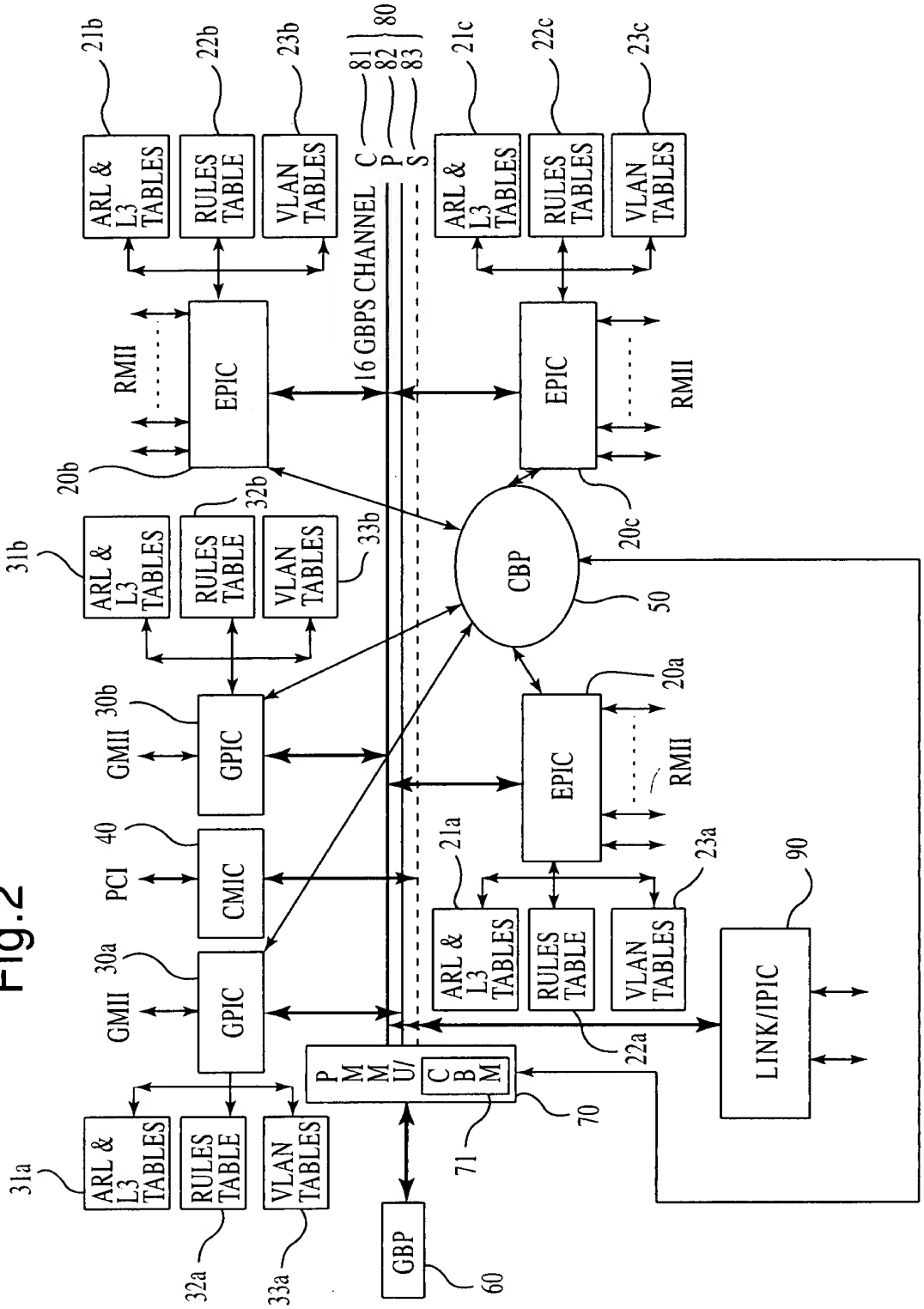

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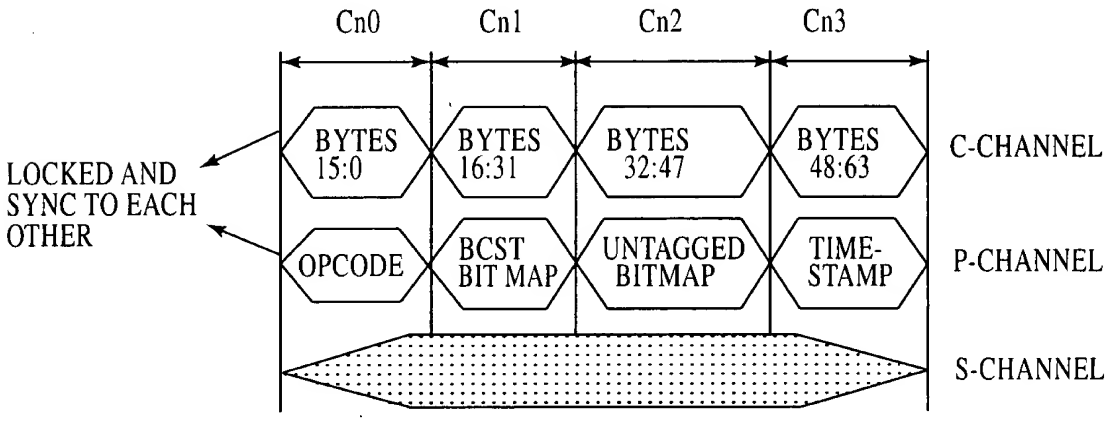
Fig.3



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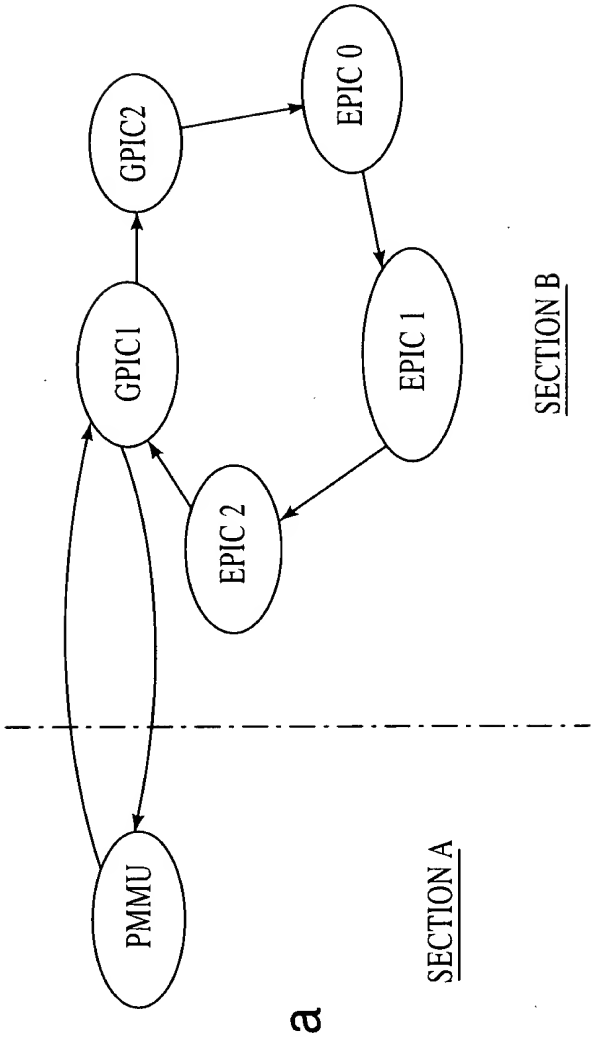

Fig.4a

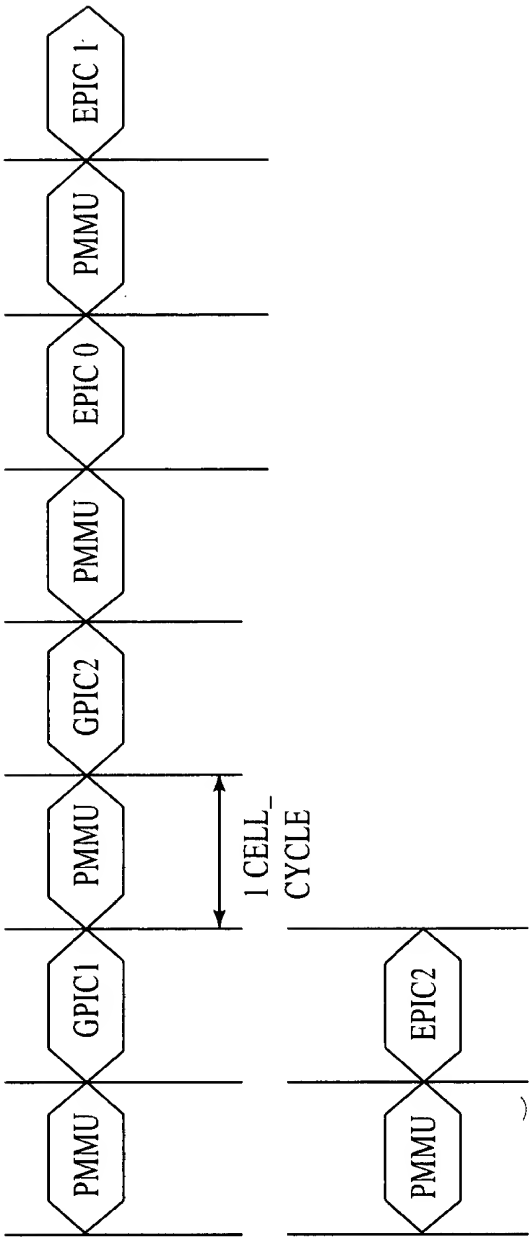

Fig.4b

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Fig.5

PROTOCOL CHANNEL MESSAGES

30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0
OP CODE	IP	RESERVED	NXT CELL	SRC DEST PORT			COS	J	S	E CR C	P	O	LEN		
	IPX														

30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0
RESERVED							BC/MC PORTBITMAP								

30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0
U	RES	UNTAGGED PORTBITMAP/SRC PORT NUMBER (BIT0..5)													

30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0
CPU OPCODES							TIME STAMP								

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Fig.6

SIDE BAND CHANNEL MESSAGES

30	28	26	24	22	20	18	16	14	12	10	8	6	4	2	0
OPCODE			DEST PORT / DESTINATION DEV ID			SRC PORT			DATA LEN			E	E CODE	COS	C
ADDRESS															
DATA															

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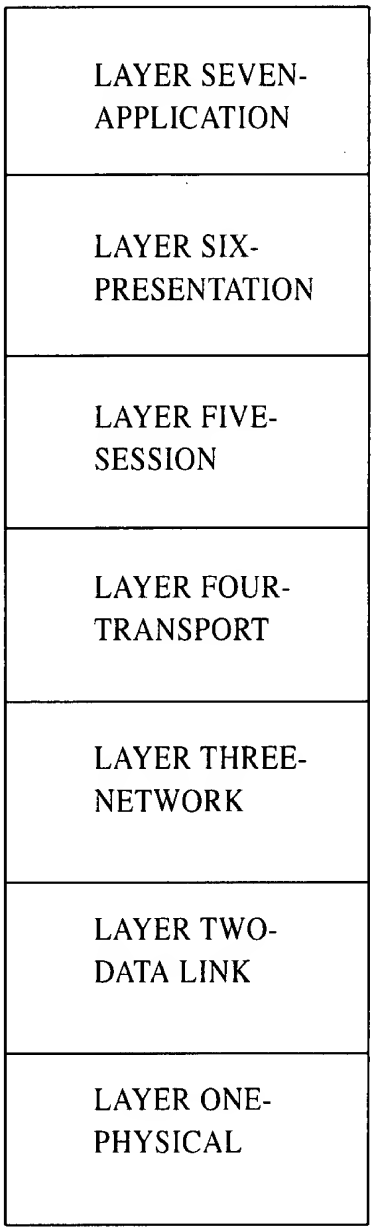
Fig.7
PRIOR ART



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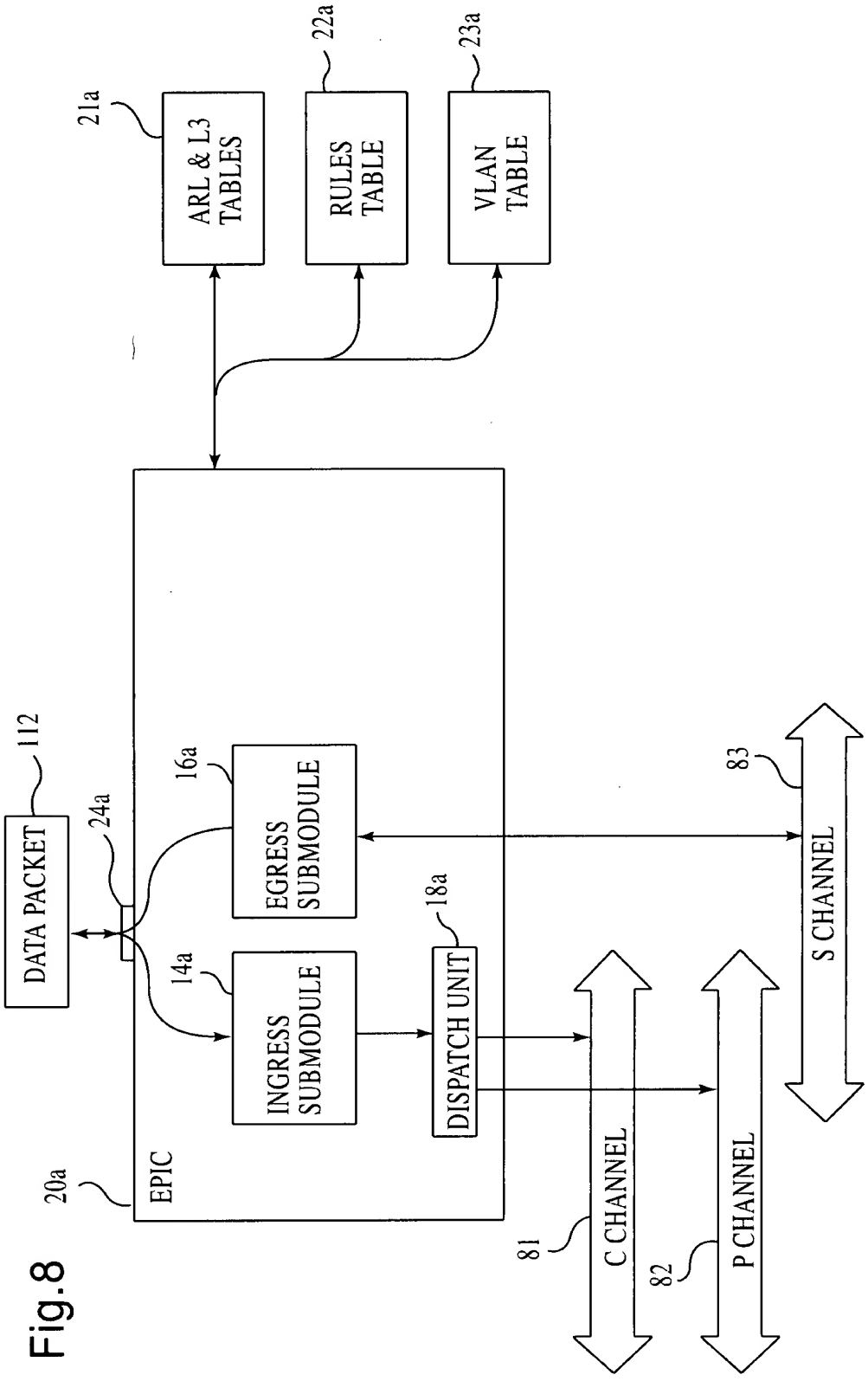

Fig.8

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Fig.9

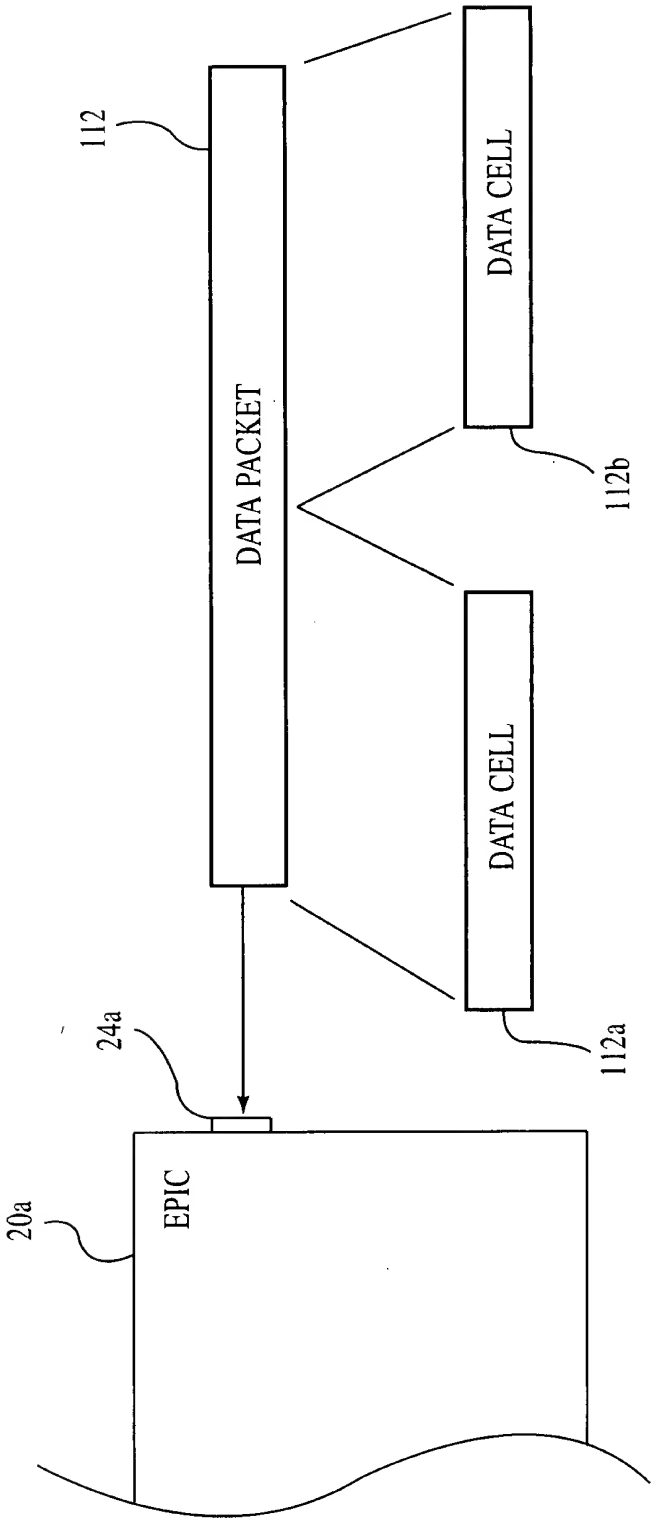

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Fig.10

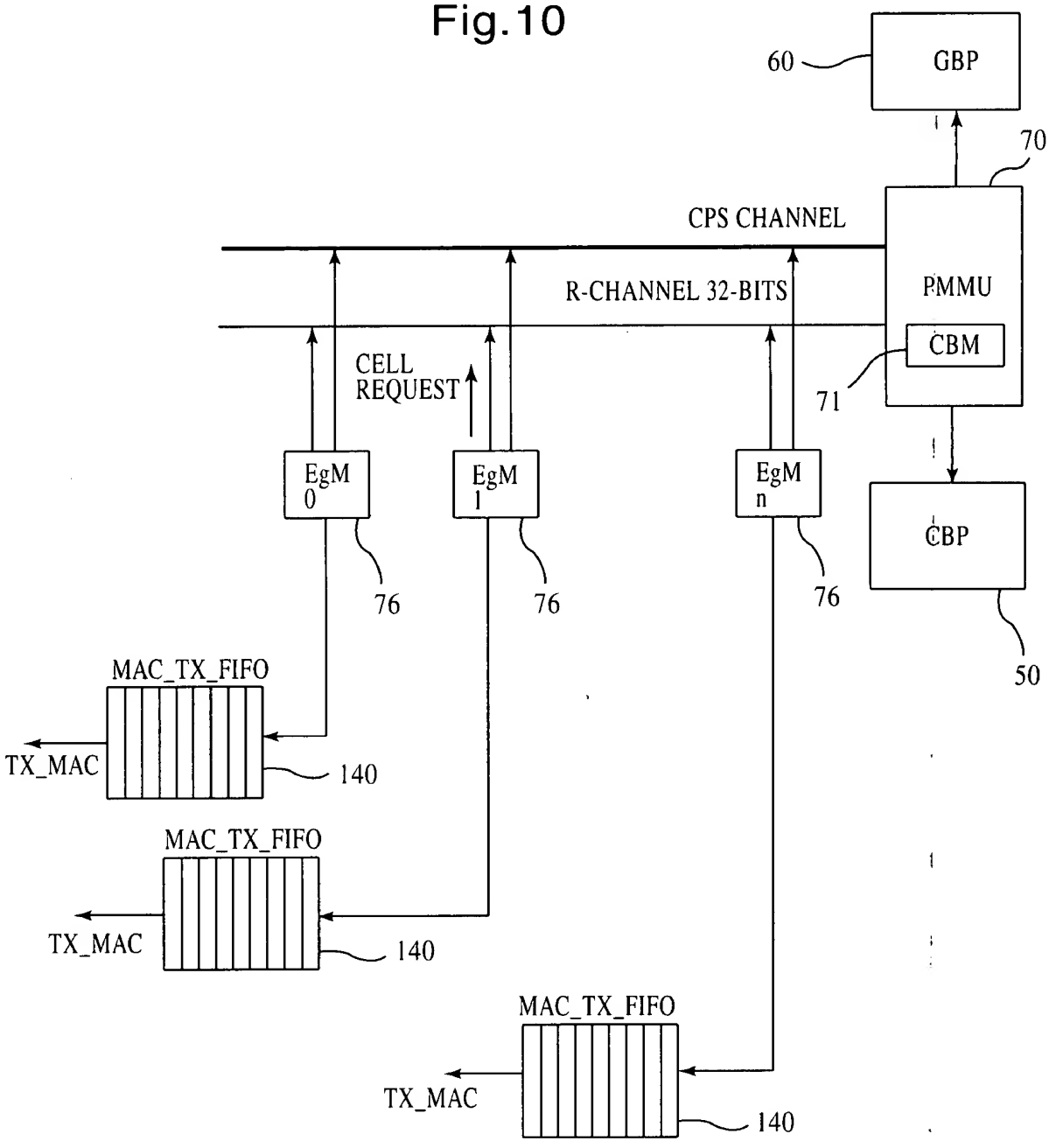

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Fig.11

LINE 0 →	FC | LC | BC/MC | Cpy_cnt (5b) | Cell_length (7b) | CRC (2b) | NC_header (16b) | Src Count (6) | IPX | IP | | Time_Stamp (14b) | O bits (2b) | P | NextCellLen(2b) | CpuOpcode(4b) | Cell_data (0-9B)
LINE 1 →	Cell_data (10-27) Bytes
LINE 2 →	Cell_data (28-45) Bytes
LINE 3 →	Cell_data (46-63) Bytes

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Fig.12

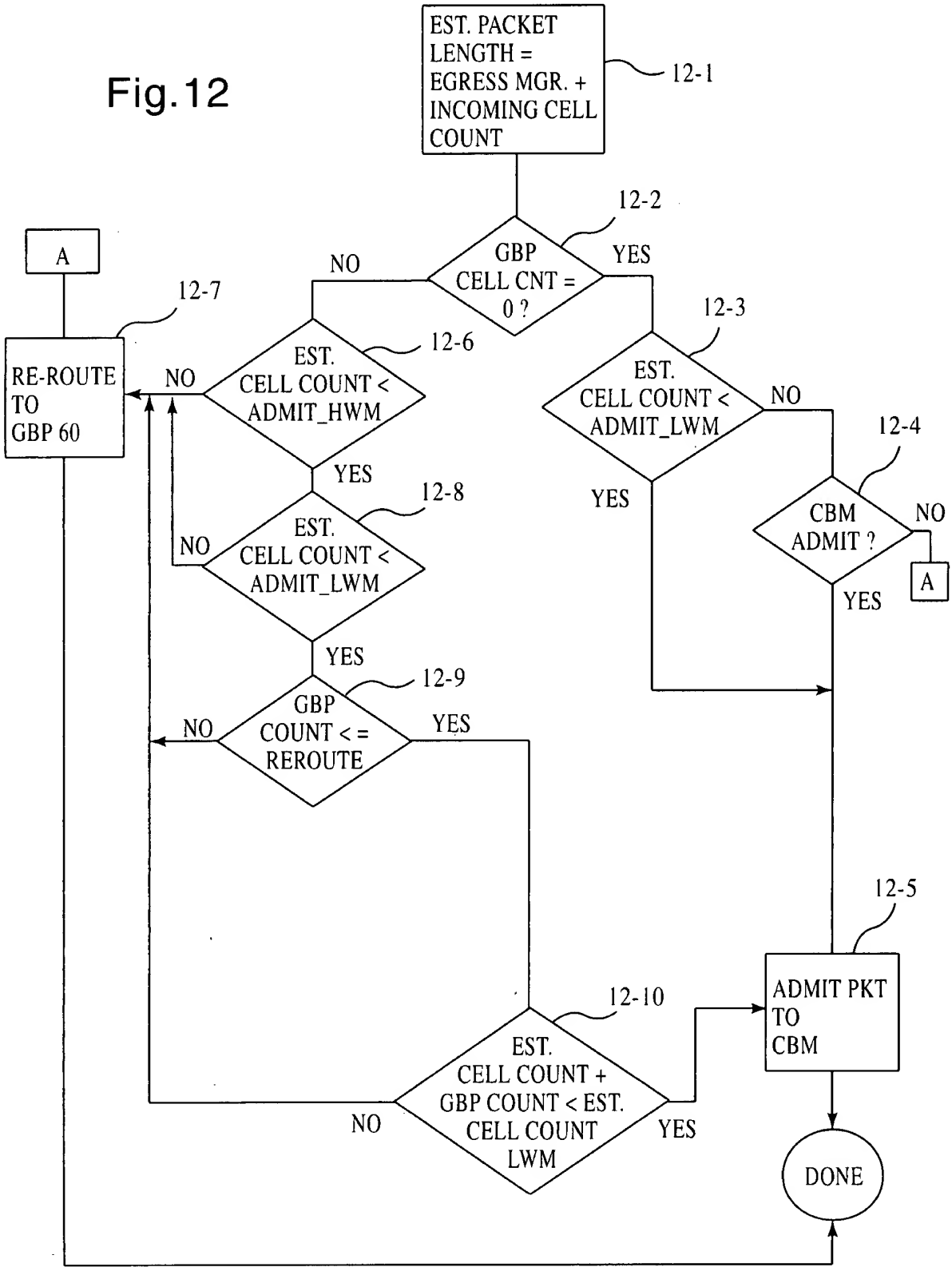

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Fig.13

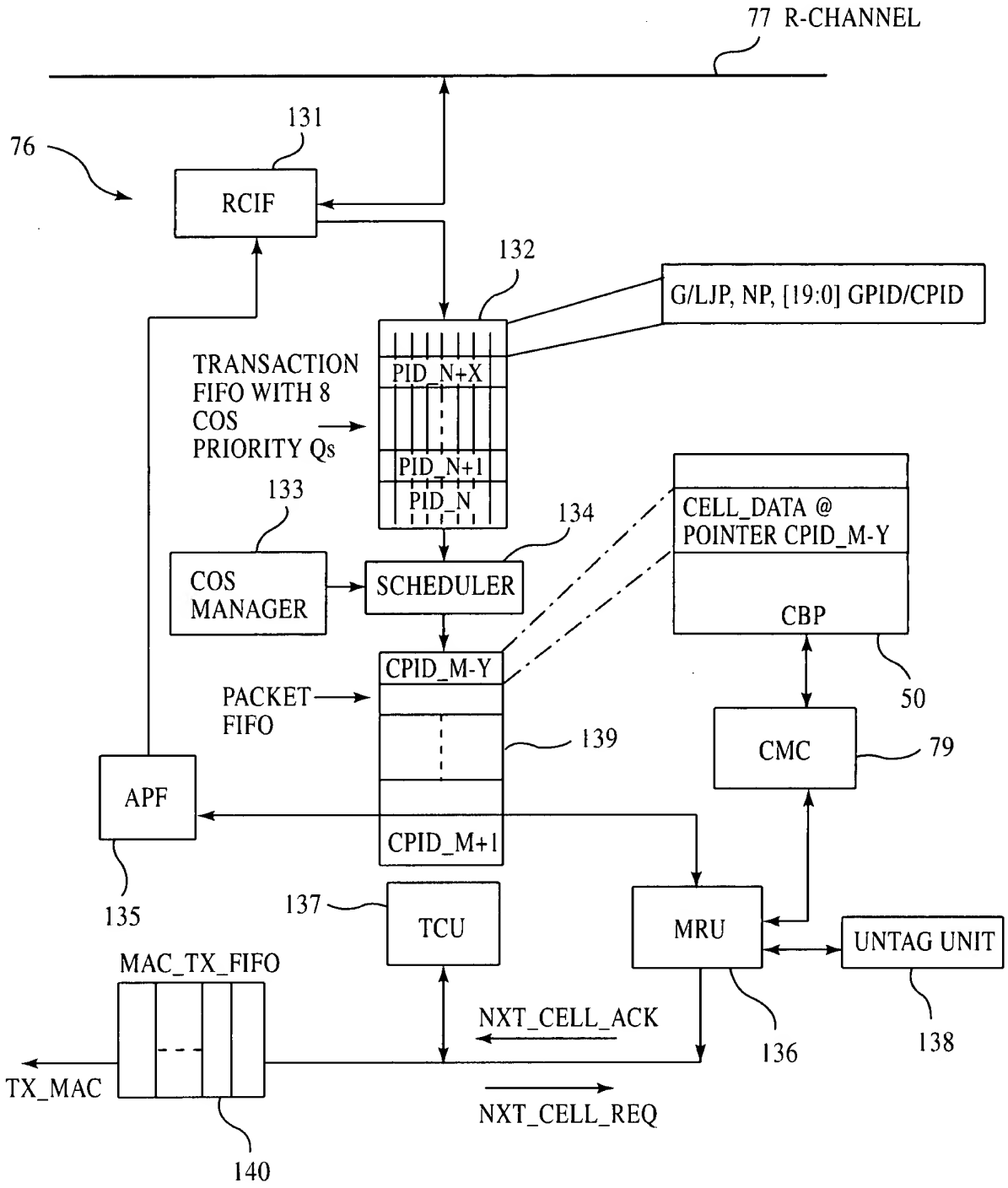

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Fig.14

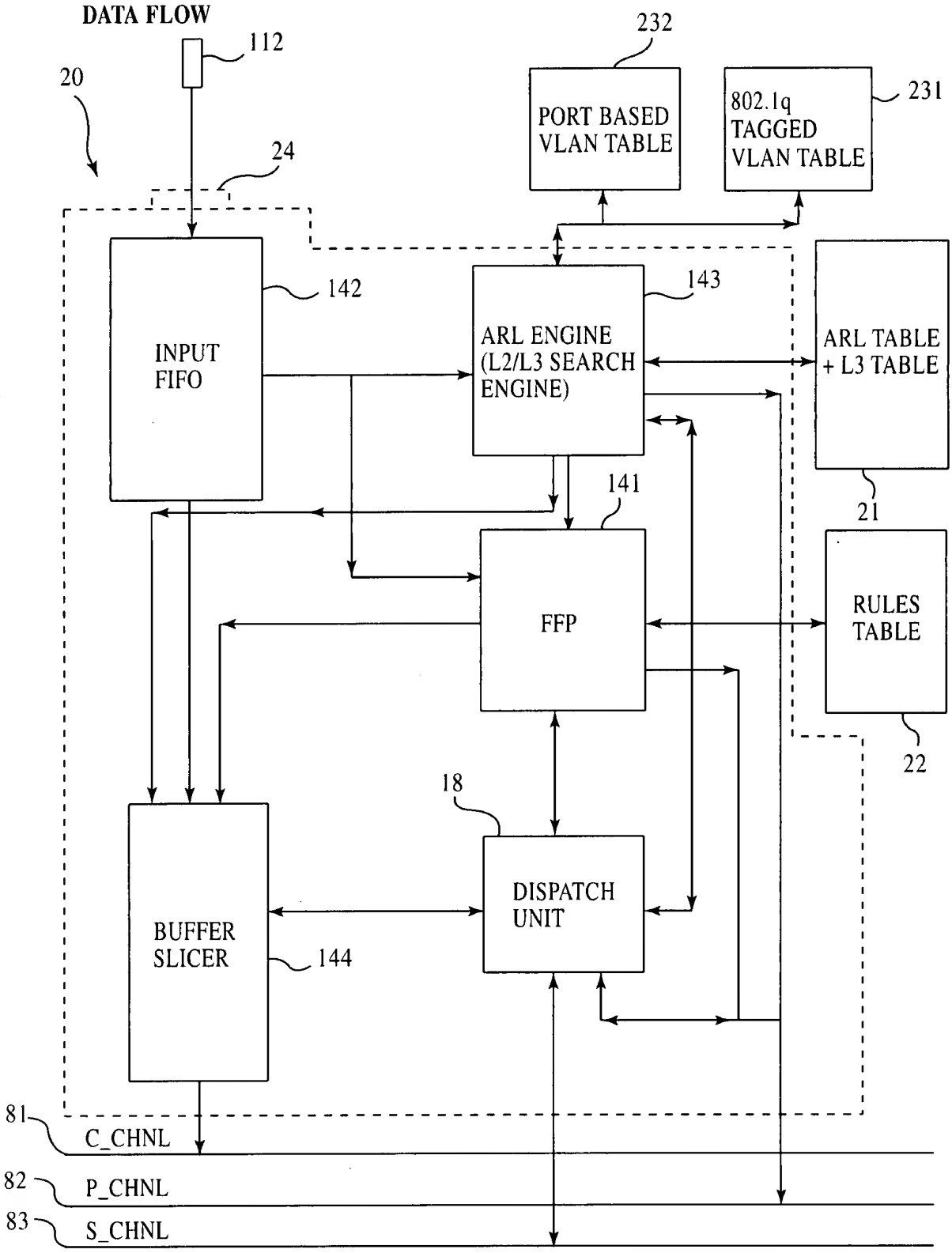

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Fig.15

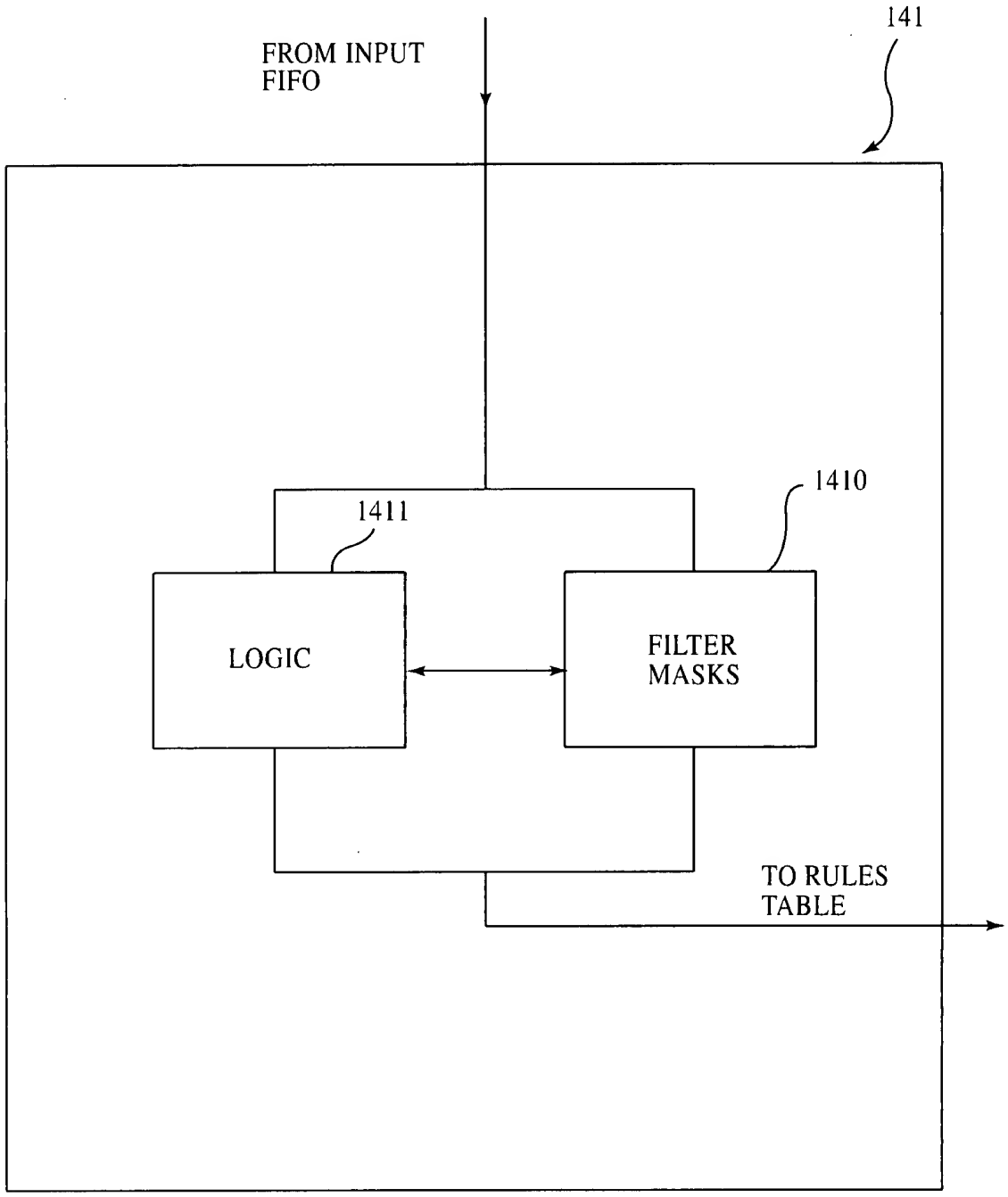

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Fig.16

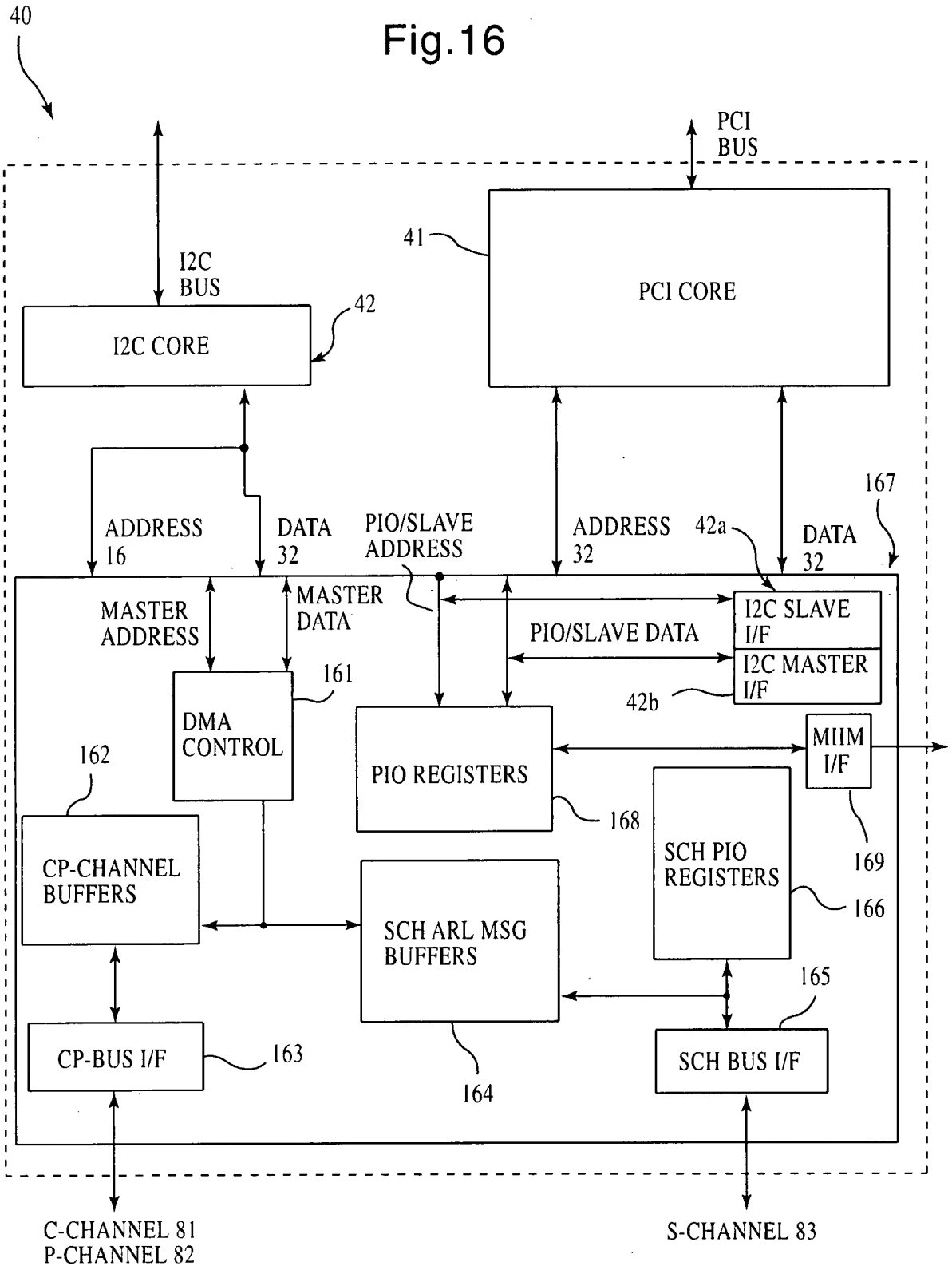

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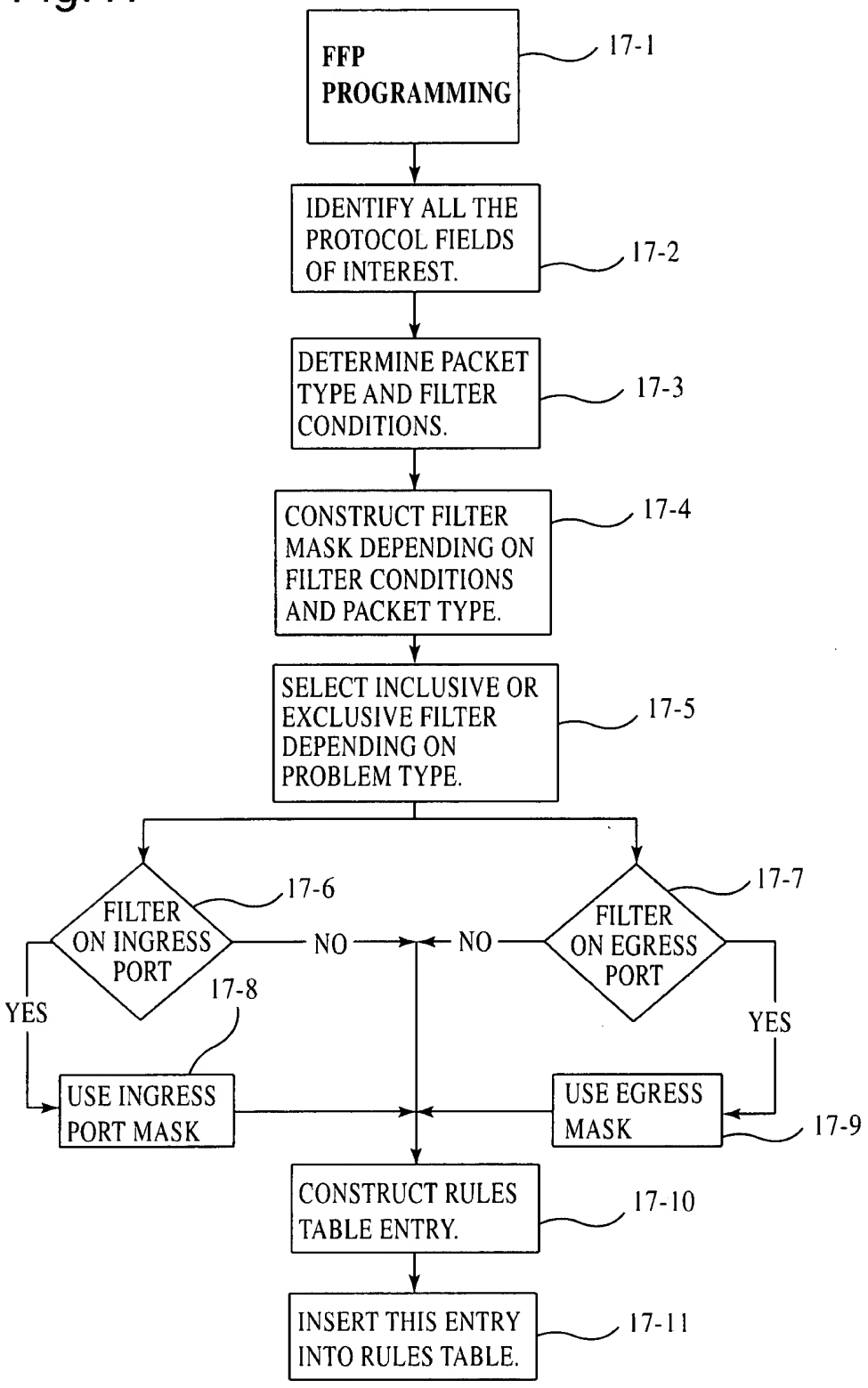
Fig.17 FFP PROGRAMMING FLOW CHART



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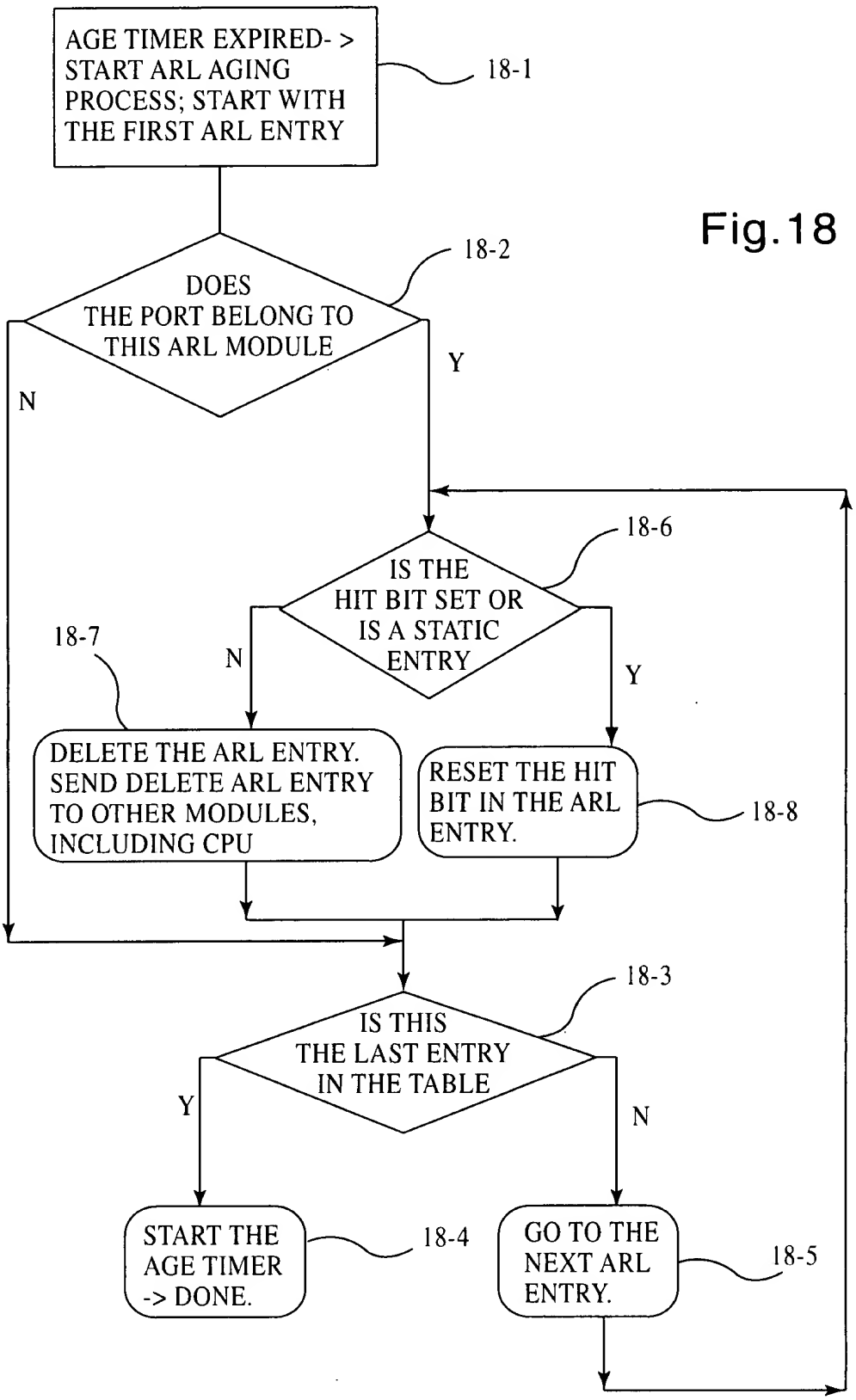

Fig.18

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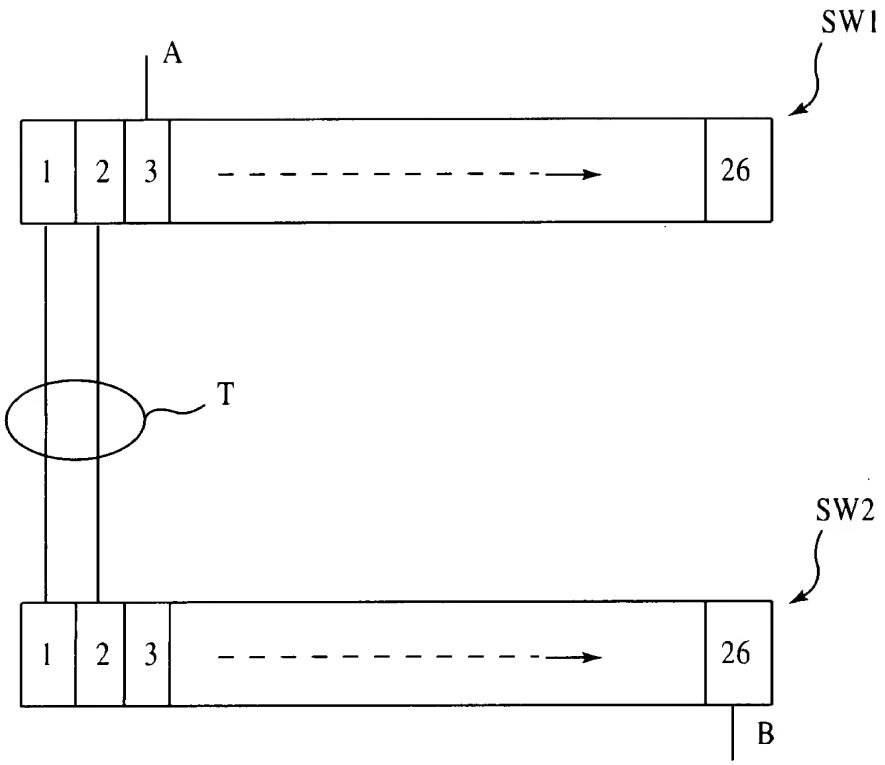

Fig.19

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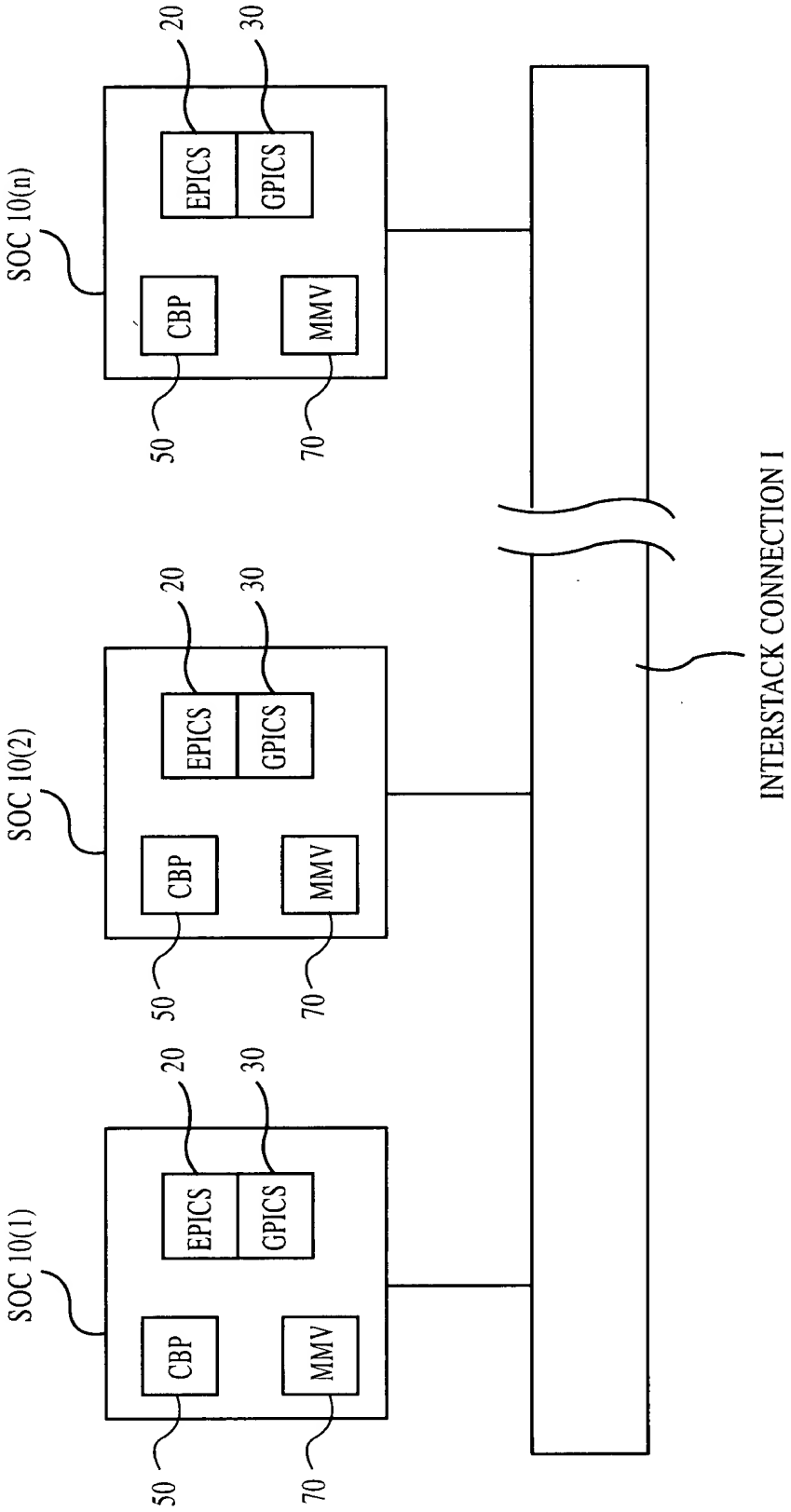

Fig.20

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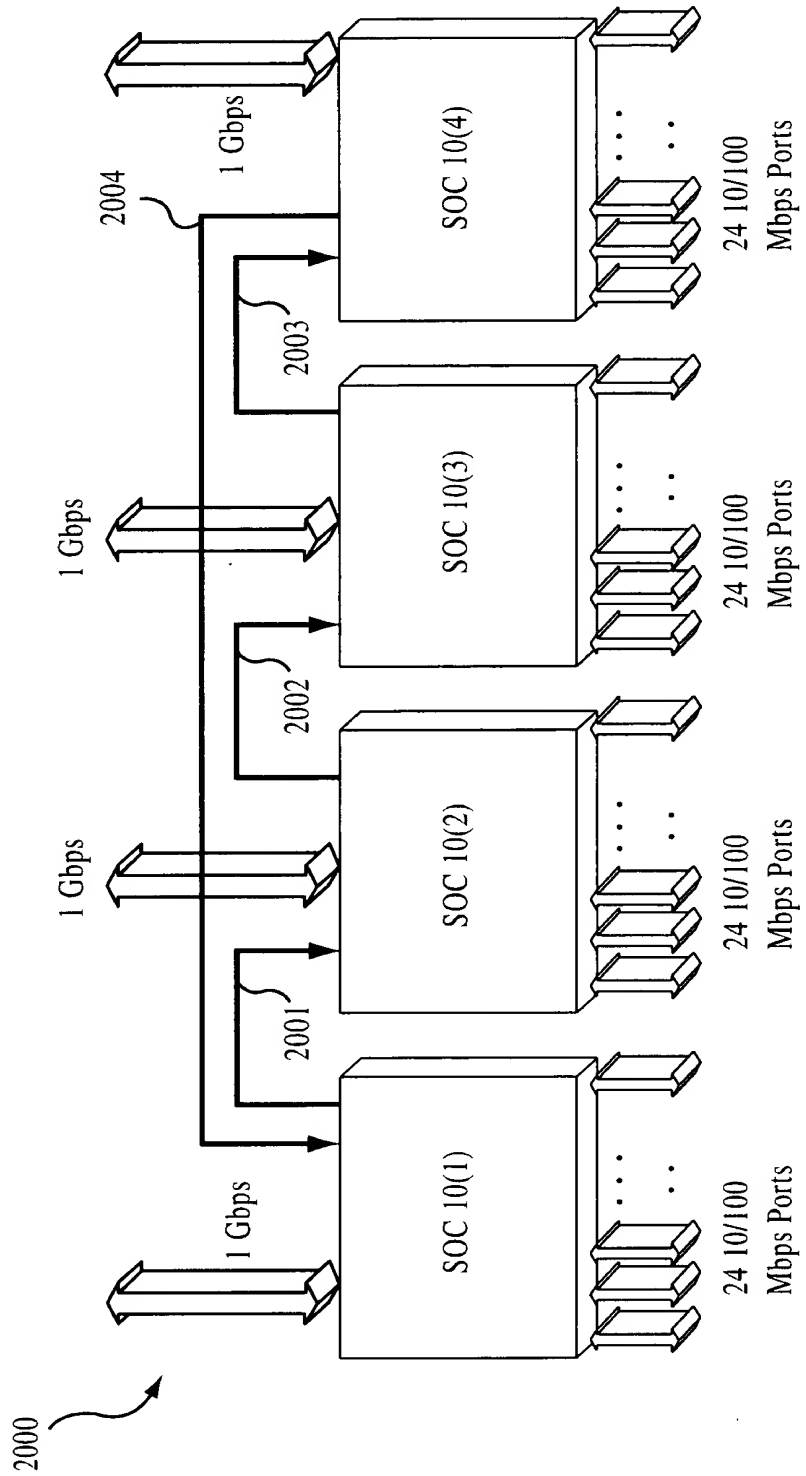

Fig.21

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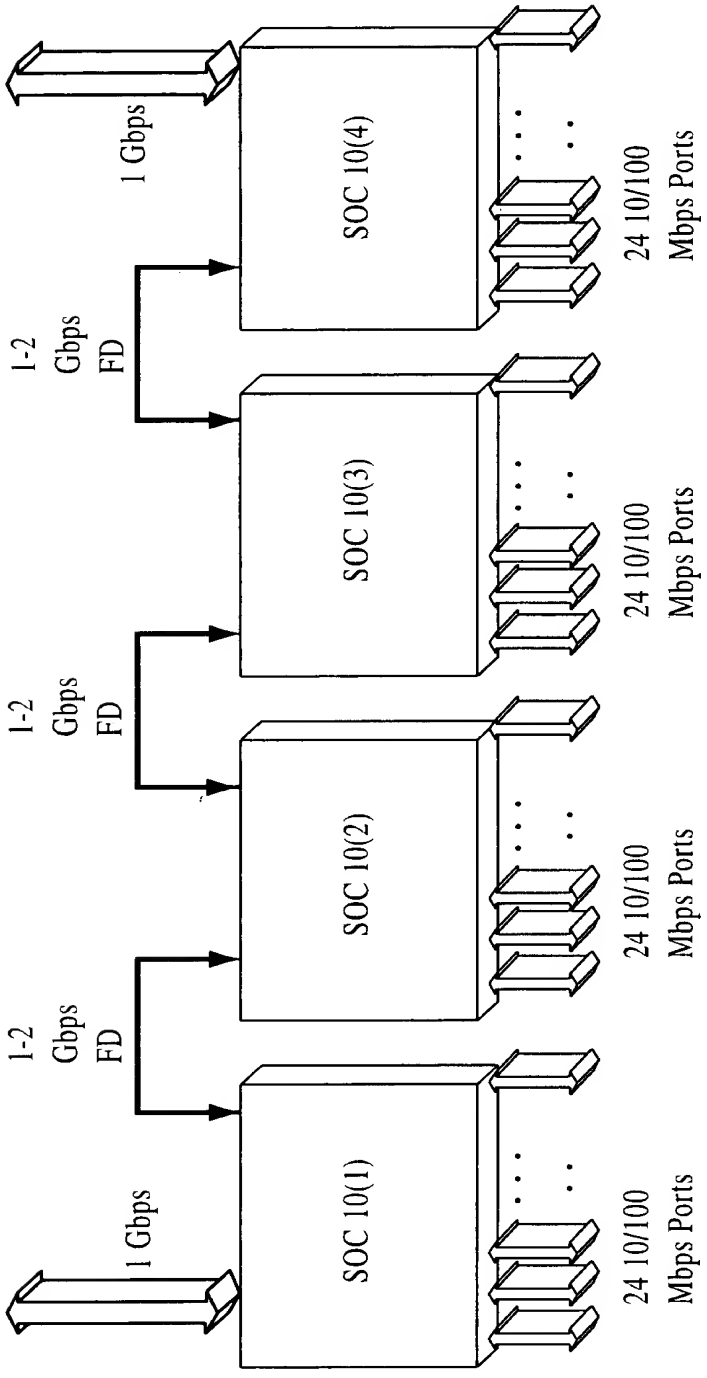

Fig.22

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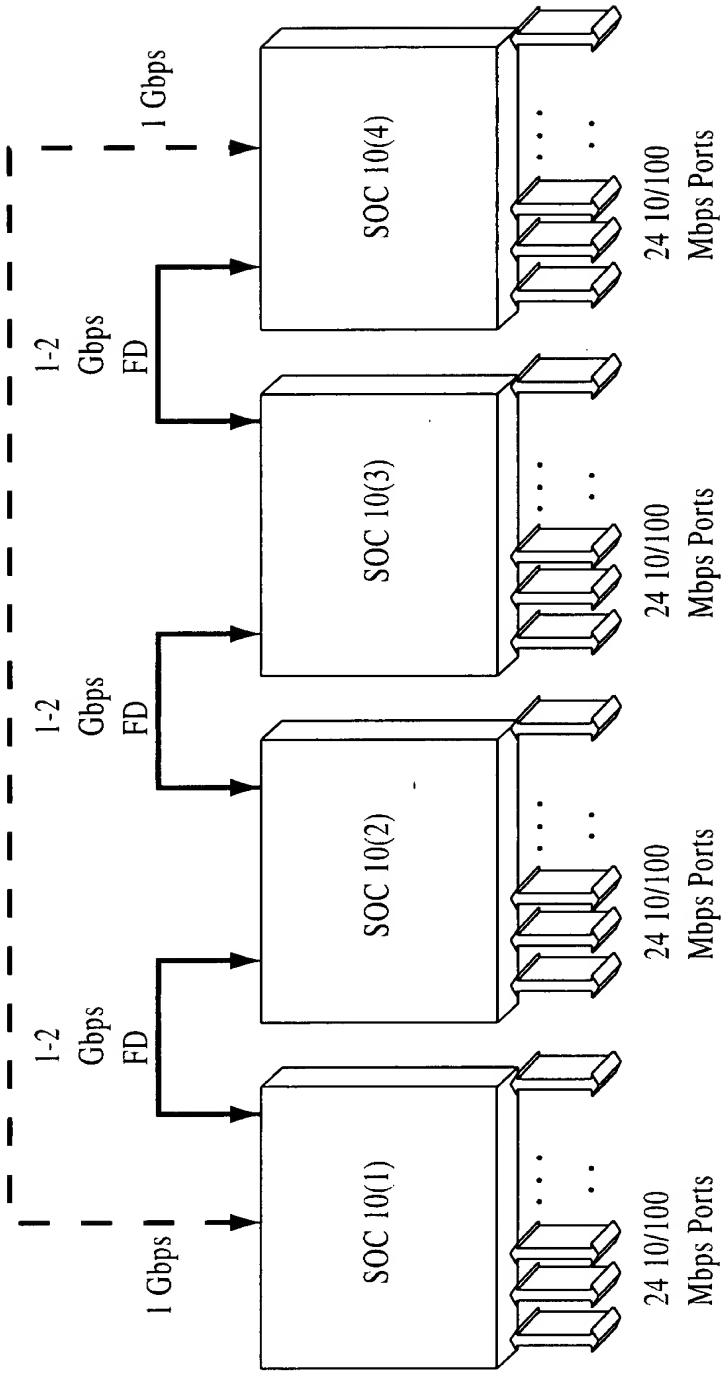

Fig.23

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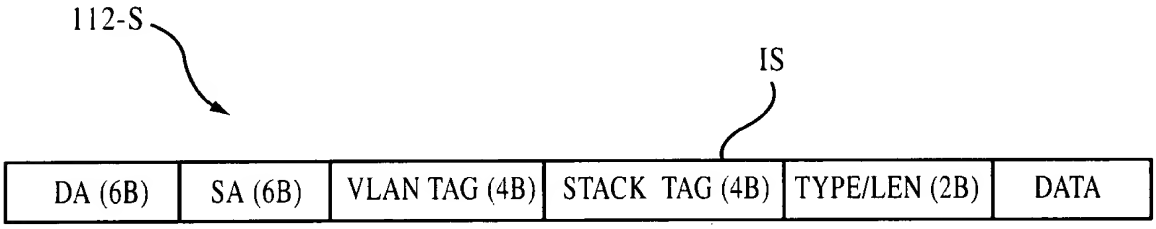

Fig.24A

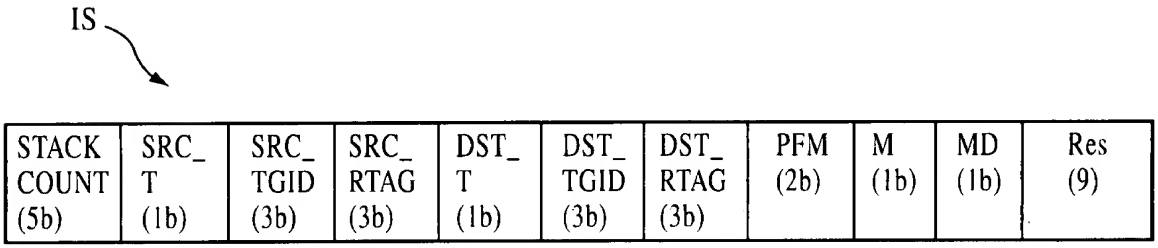

Fig.24B

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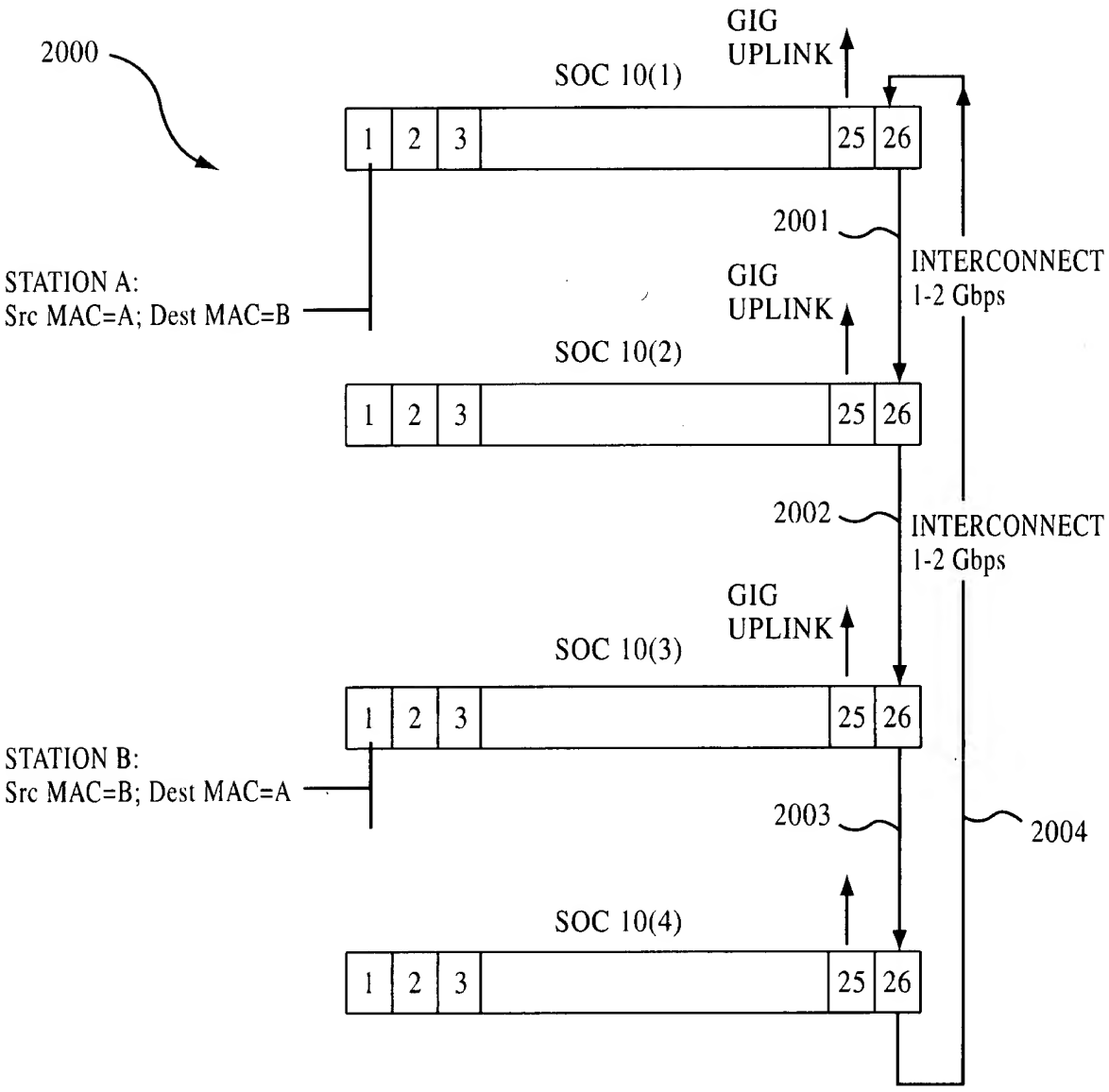

Fig.25

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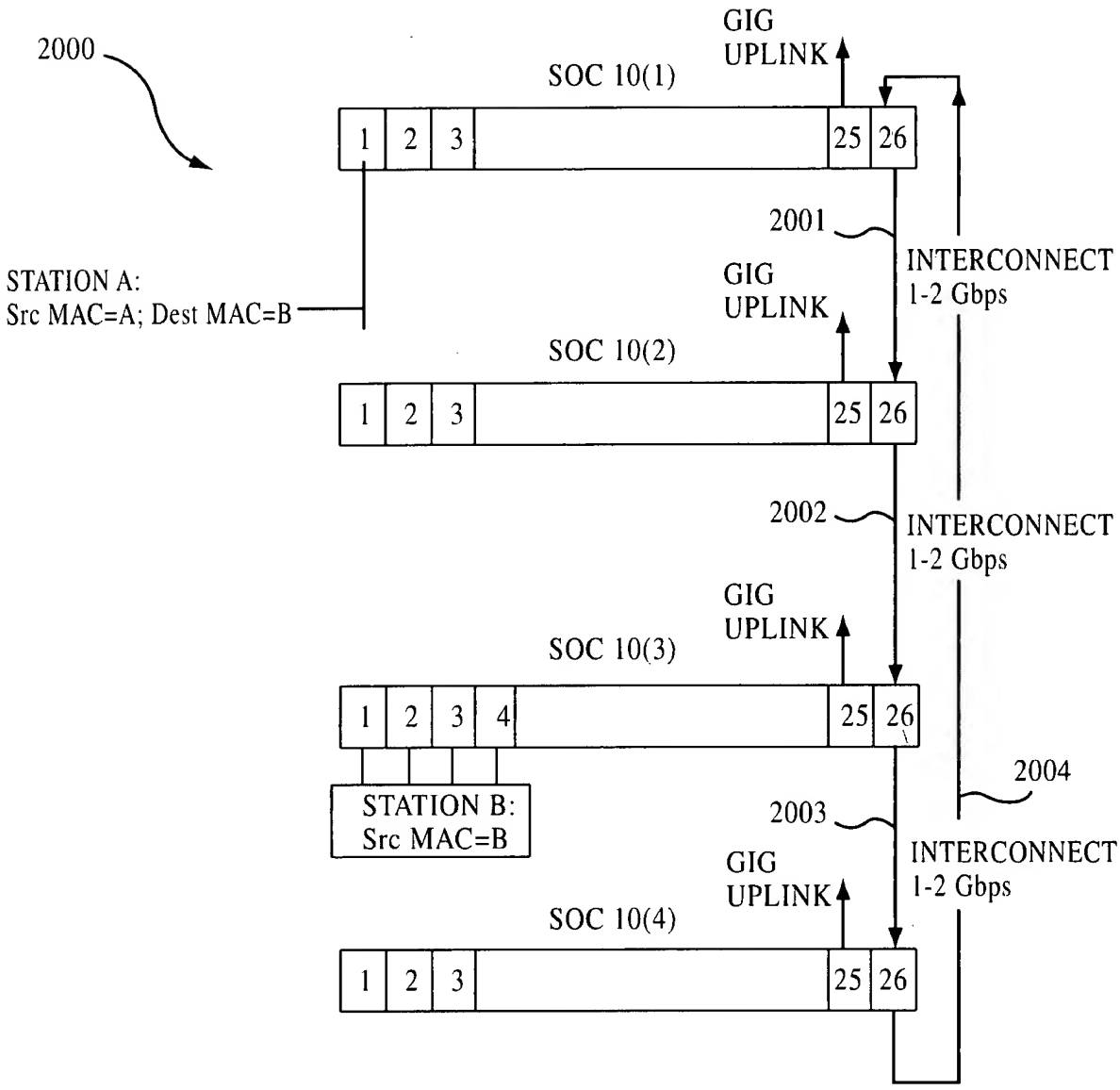

Fig.26

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Fig.27A

Port Number	Mac Address	Vlan ID	T	TGID	RTAG
1	A	1	0	X	X
26	B	1	1	2	2

Fig.27B

Port Number	Mac Address	Vlan ID	T	TGID	RTAG
26	A	1	0	X	X
26	B	1	1	2	2

Fig.27C

Port Number	Mac Address	Vlan ID	T	TGID	RTAG
26	A	1	0	X	X
1	B	1	1	2	2

Fig.27D

Port Number	Mac Address	Vlan ID	T	TGID	RTAG
26	A	1	0	X	X
26	B	1	1	2	2

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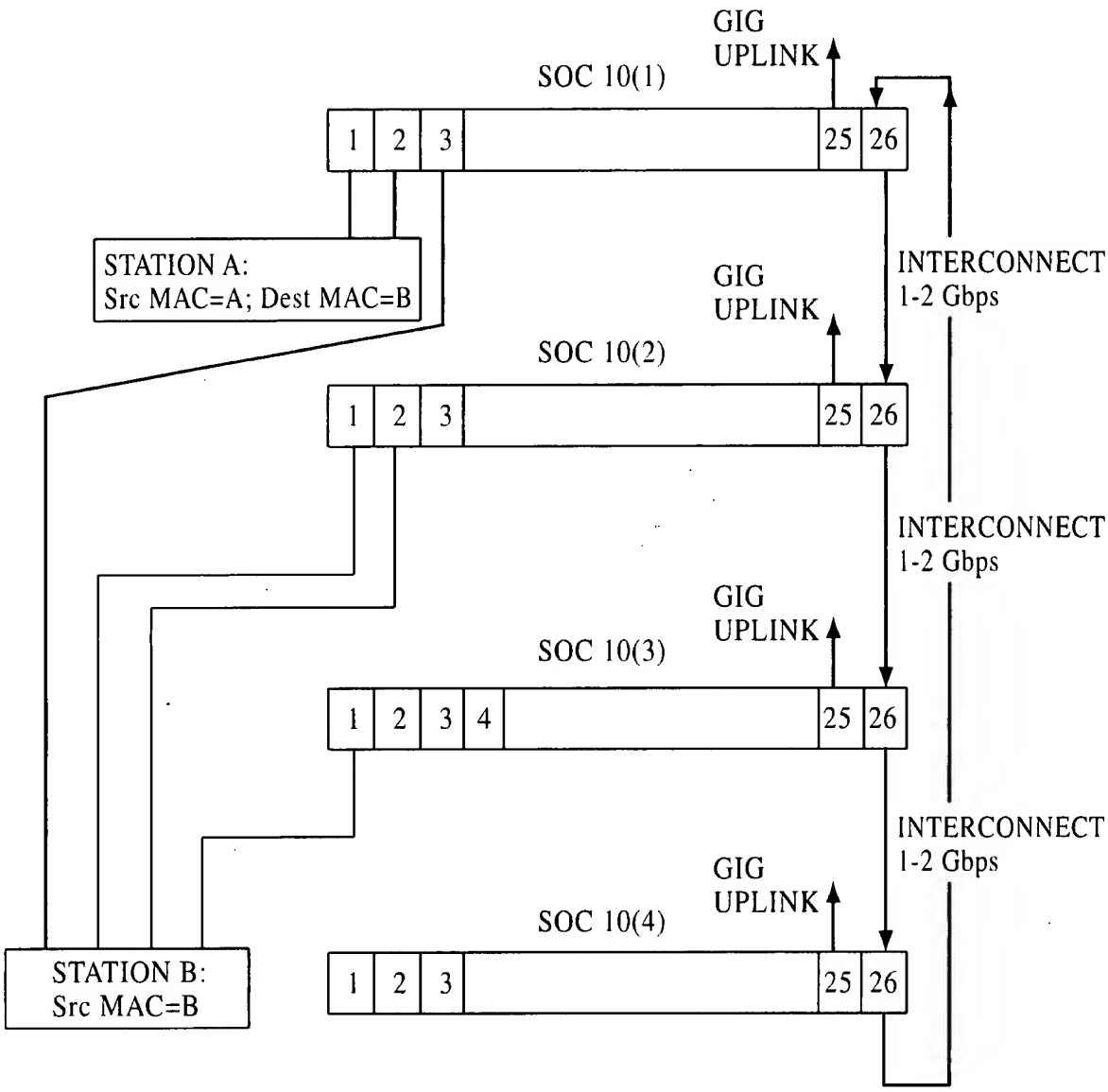

Fig.28

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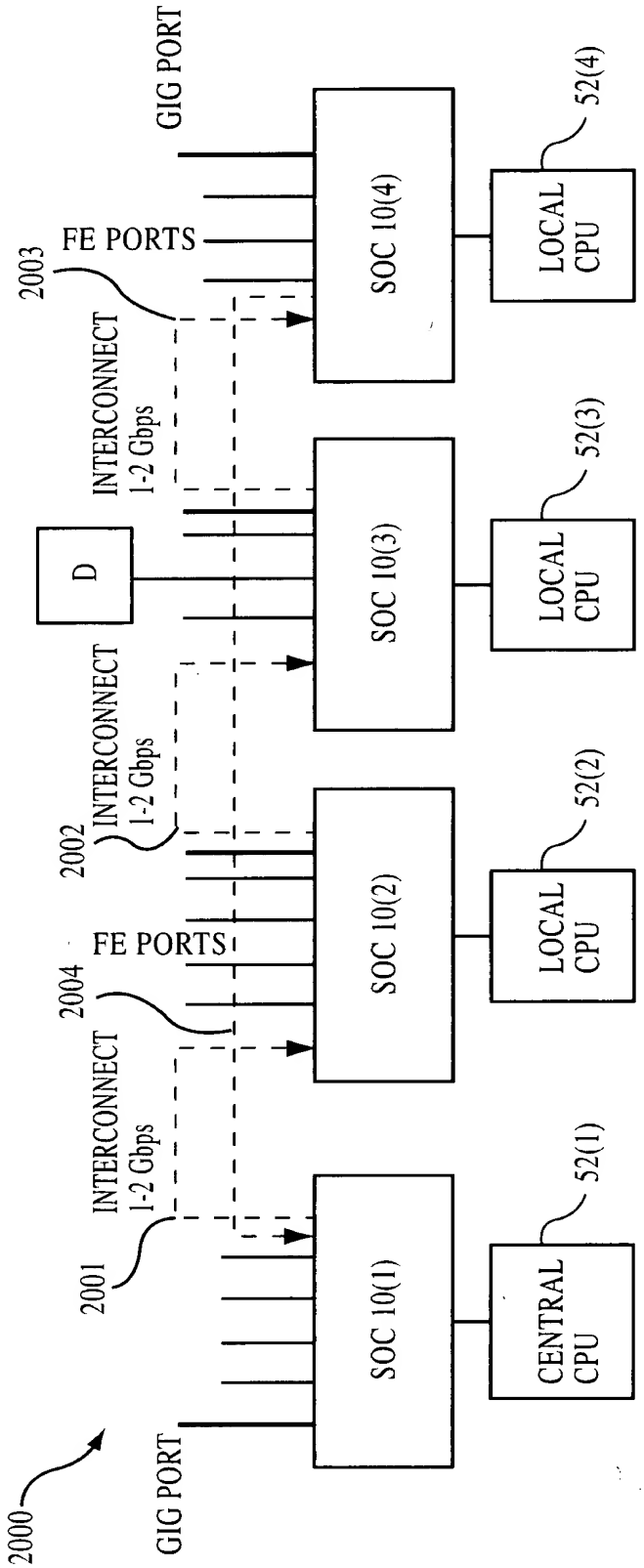
Fig.29



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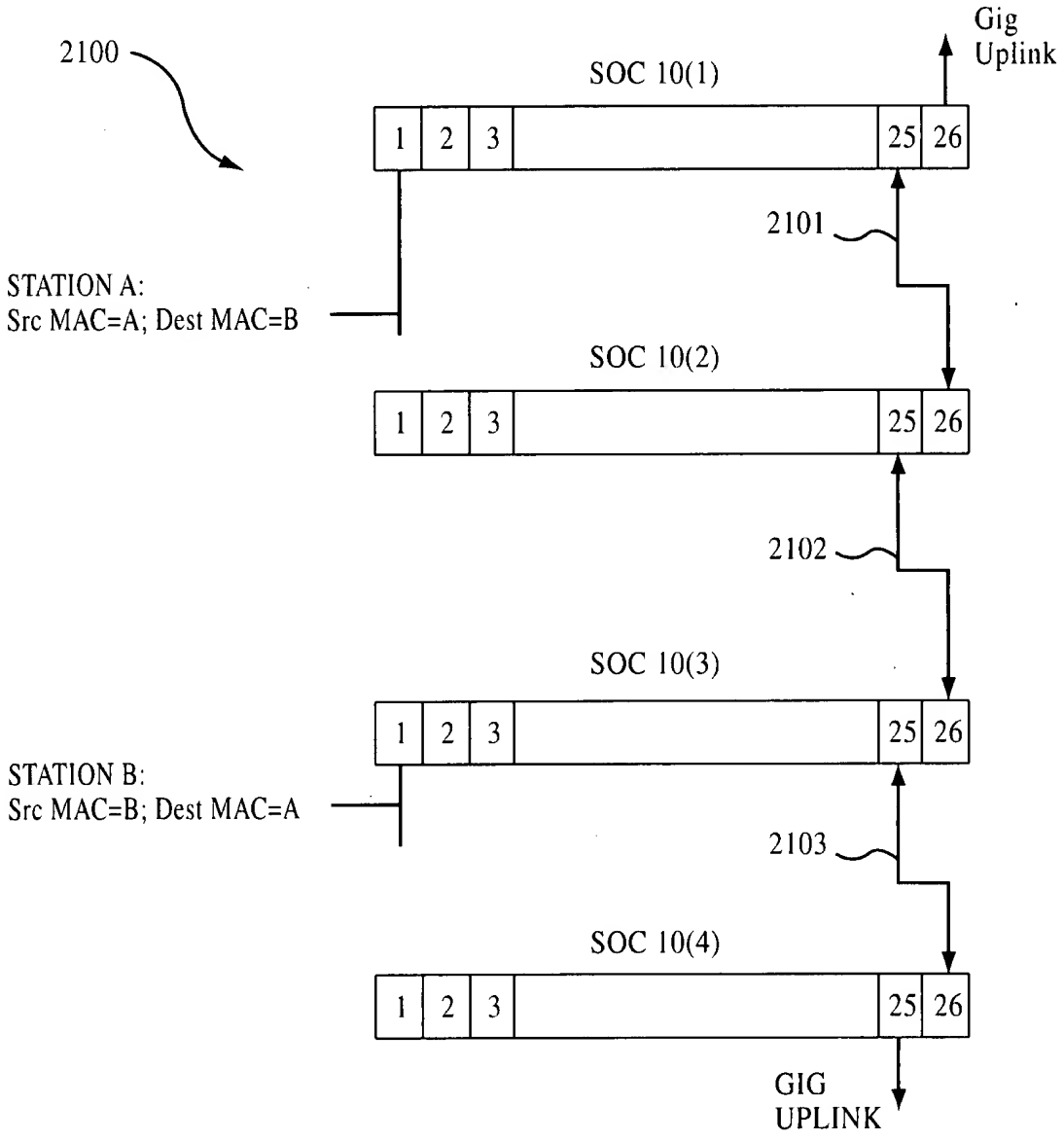

Fig.30

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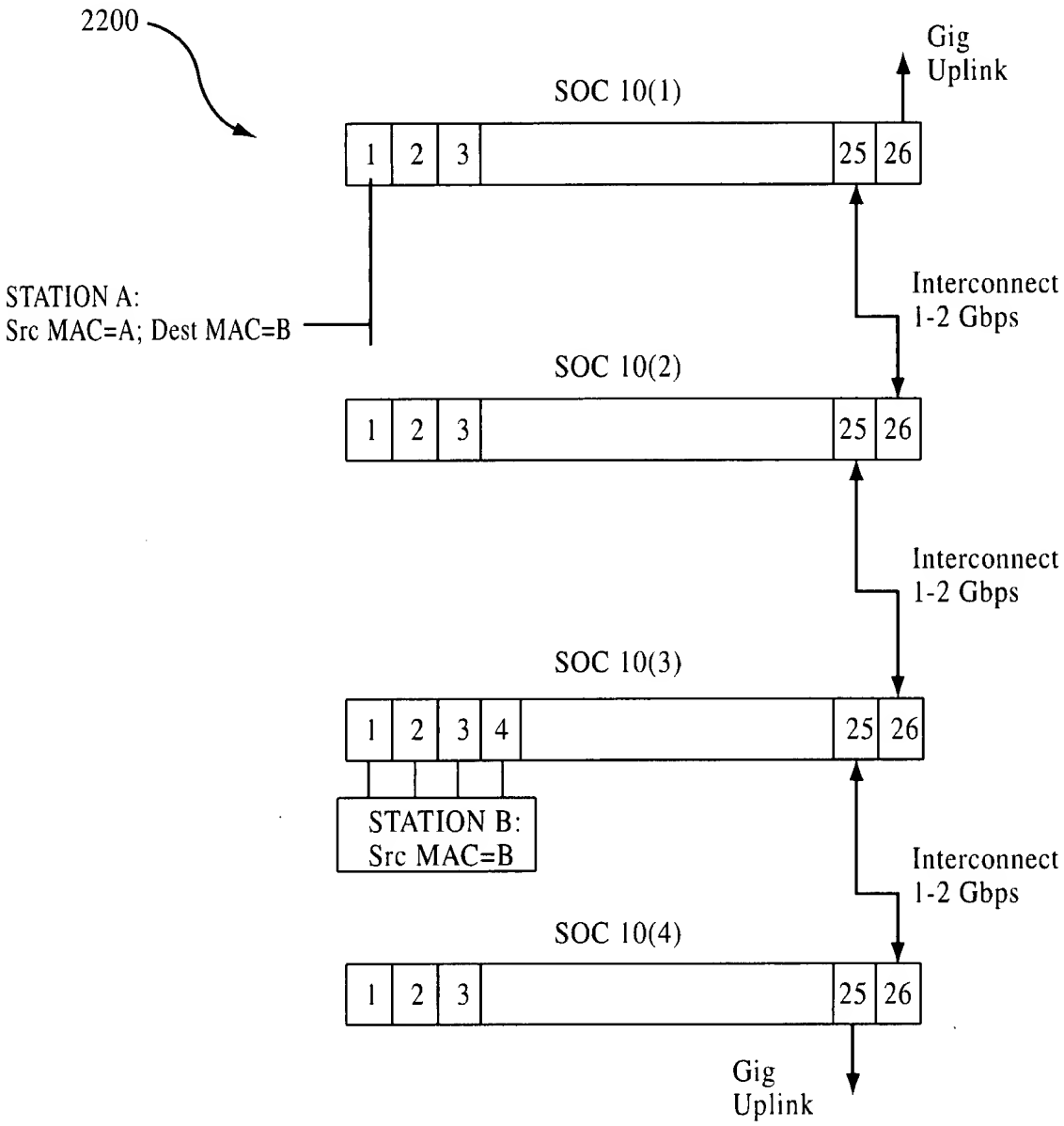

Fig.31

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Fig.32A

PORT NUMBER	MAC ADDRESS	VLAN ID	T	TGID	RTAG
1	A	1	0	X	X
25	B	1	1	2	2

Fig.32B

PORT NUMBER	MAC ADDRESS	VLAN ID	T	TGID	RTAG
26	A	1	0	X	X
25	B	1	1	2	2

Fig.32C

PORT NUMBER	MAC ADDRESS	VLAN ID	T	TGID	RTAG
26	A	1	0	X	X
1	B	1	1	2	2

Fig.32D

PORT NUMBER	MAC ADDRESS	VLAN ID	T	TGID	RTAG
26	A	1	0	X	X

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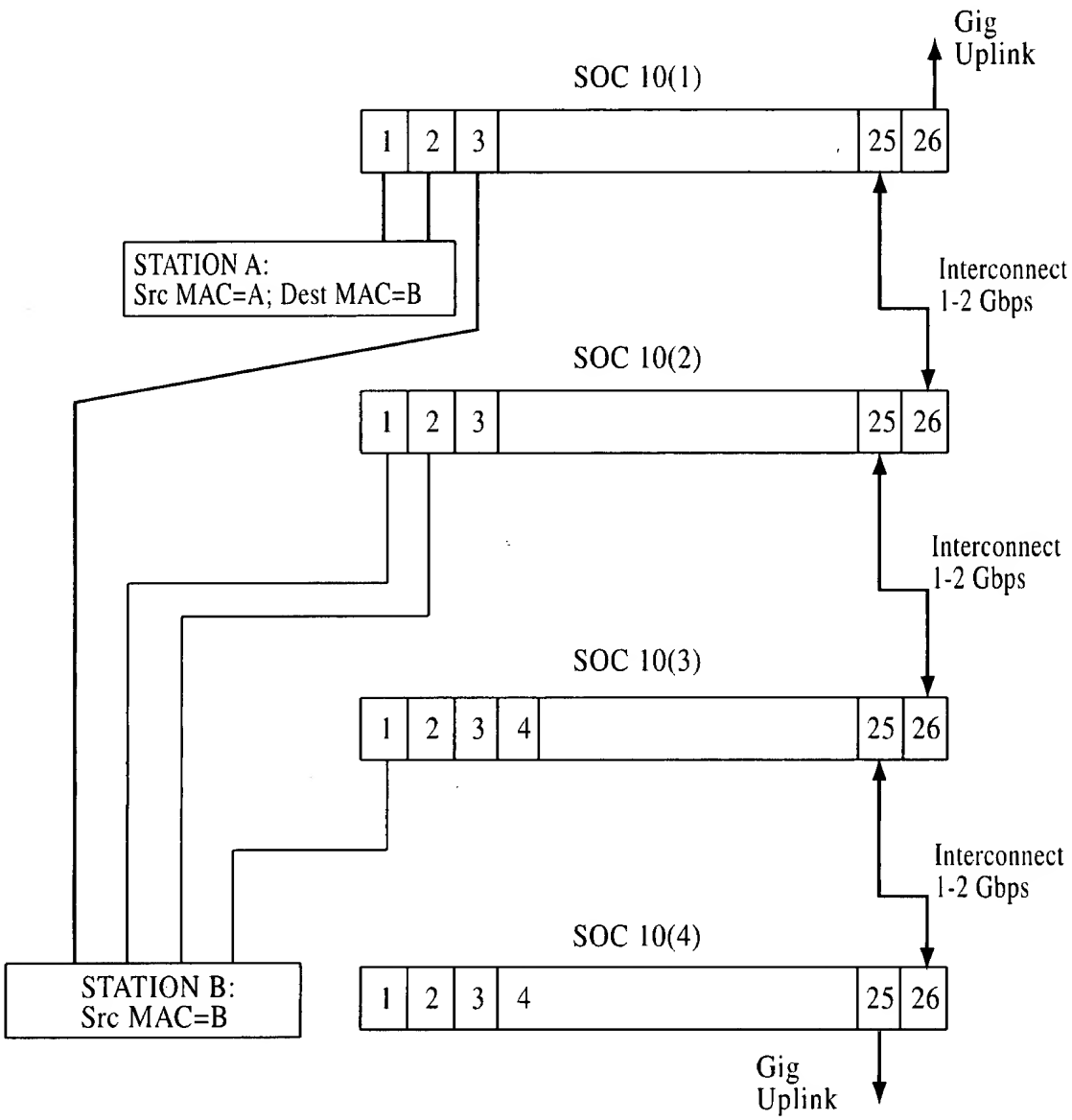

Fig.33

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Fig.34A

PORT NUMBER	MAC ADDRESS	VLAN ID	T	TGID	RTAG
1	A	1	1	1	1
25	B	1	1	2	2

Fig.34B

PORT NUMBER	MAC ADDRESS	VLAN ID	T	TGID	RTAG
26	A	1	1	1	1
25	B	1	1	2	2

Fig.34C

PORT NUMBER	MAC ADDRESS	VLAN ID	T	TGID	RTAG
26	A	1	1	1	1
1	B	1	1	2	2

Fig.34D

PORT NUMBER	MAC ADDRESS	VLAN ID	T	TGID	RTAG
26	A	1	1	1	1

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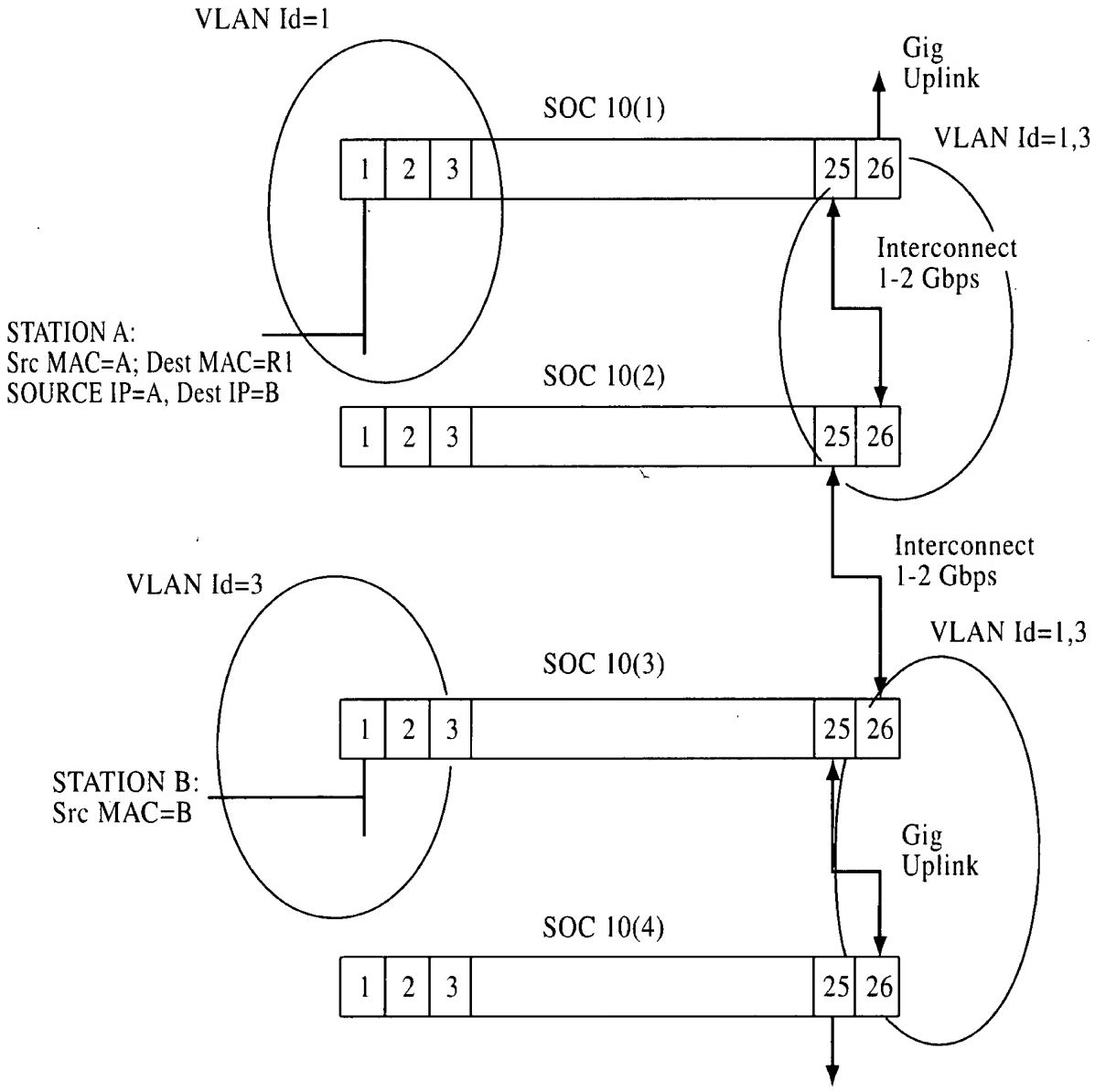

Fig.35

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Trunk Group Table for SW1:

TGID	TP0	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TG Size
2	25	25	25	25	X	X	X	X	4

Trunk Group Table for SW2:

TGID	TP0	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TG Size
2	25	25	25	25	X	X	X	X	4

Trunk Group Table for SW3:

TGID	TP0	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TG Size
2	1	2	3	4	X	X	X	X	4

Trunk Group Table for SW4:

TGID	TP0	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TG Size
2	26	26	26	26	X	X	X	X	4

Fig.36

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Trunk Group Table for SW1:

TGID	TP0	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TG Size
1	1	2	X	X	X	X	X	X	2
2	25	25	25	3	X	X	X	X	4

Trunk Group Table for SW2:

TGID	TP0	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TG Size
1	26	26	X	X	X	X	X	X	2
2	25	1	2	26	X	X	X	X	4

Trunk Group Table for SW3:

TGID	TP0	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TG Size
1	26	26	X	X	X	X	X	X	2
2	1	26	26	26	X	X	X	X	4

Trunk Group Table for SW4:

TGID	TP0	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TG Size
1	26	26	X	X	X	X	X	X	2
2	26	26	26	26	X	X	X	X	4

Fig.37

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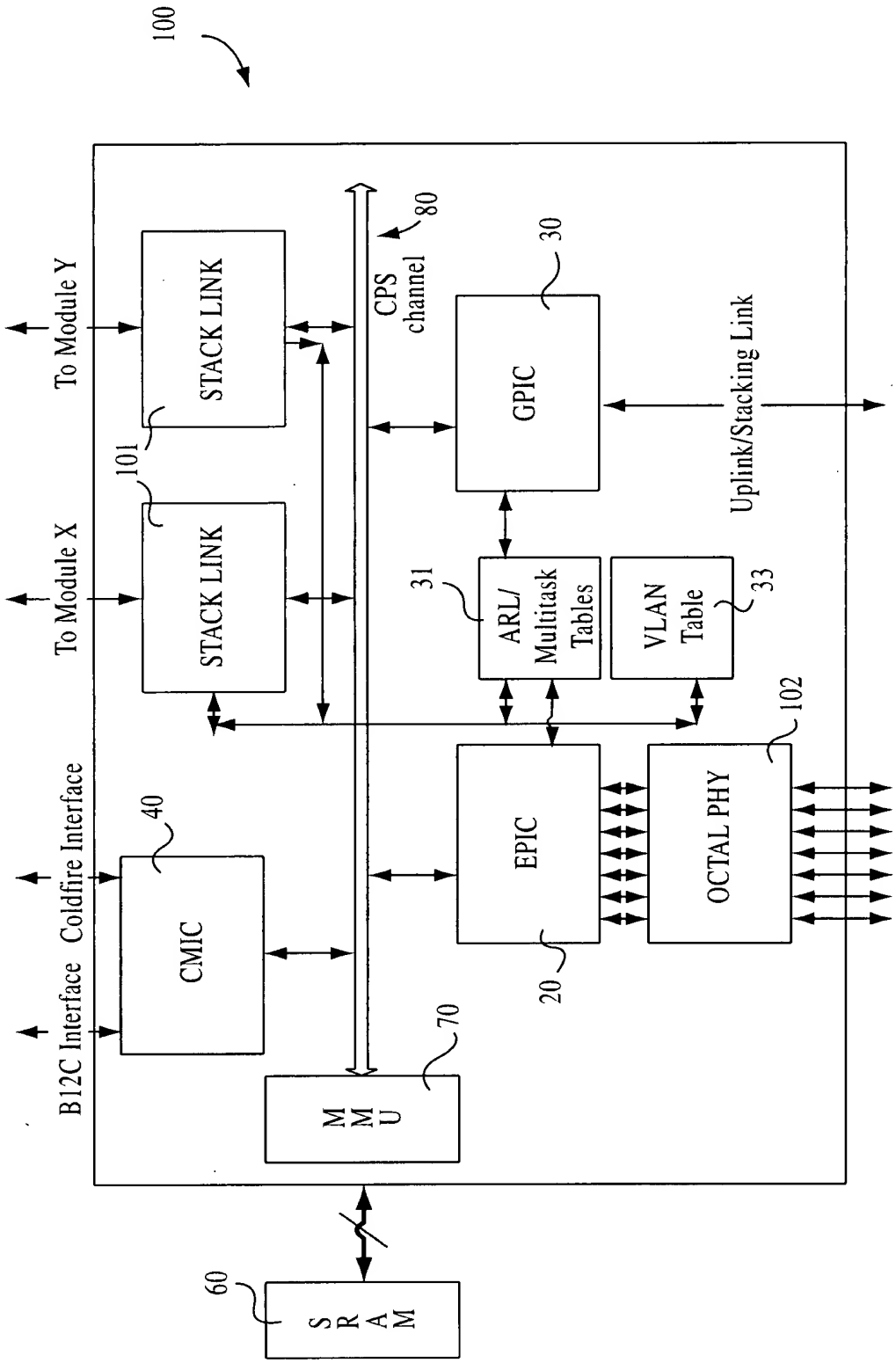

Fig.38

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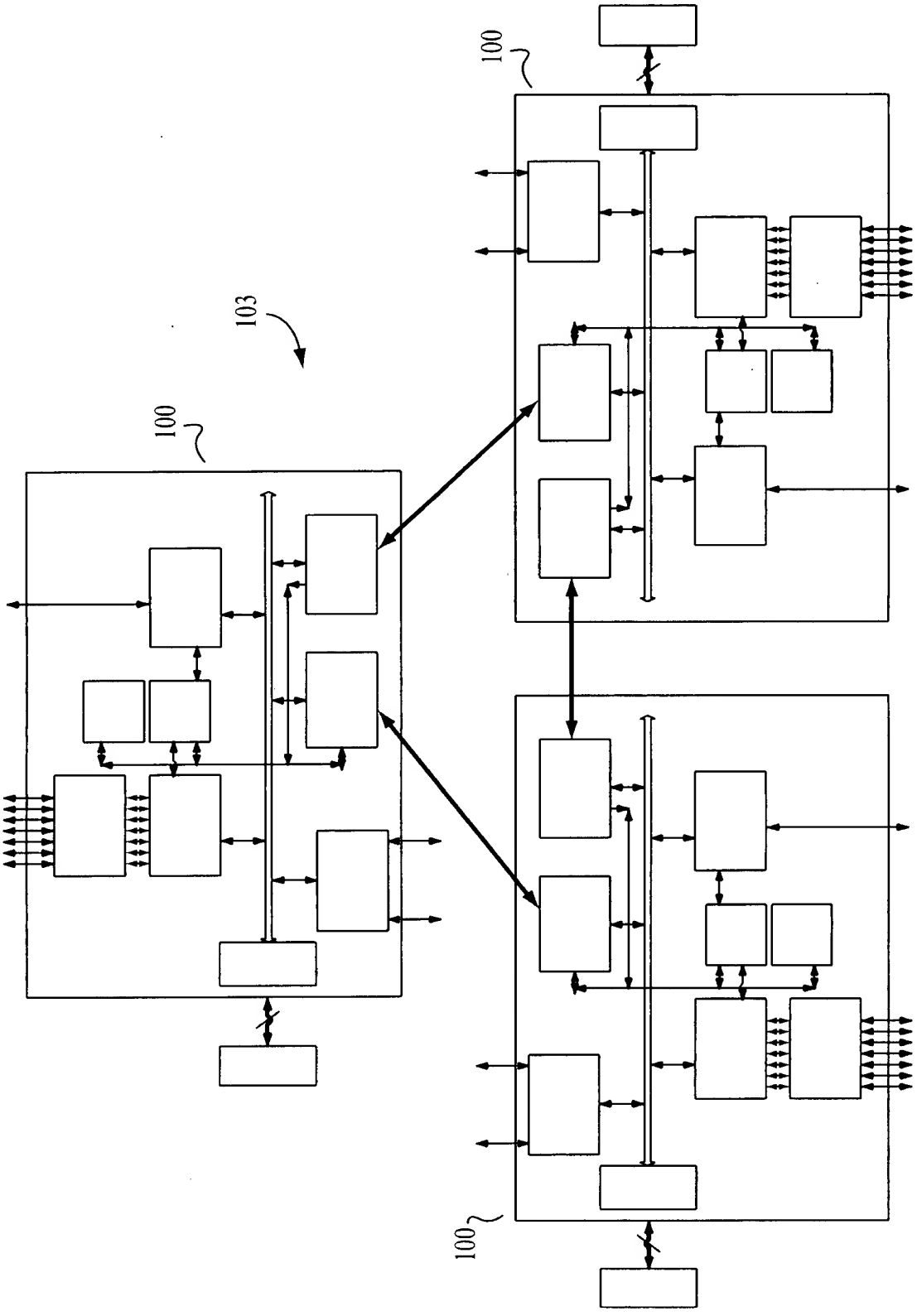

Fig.39

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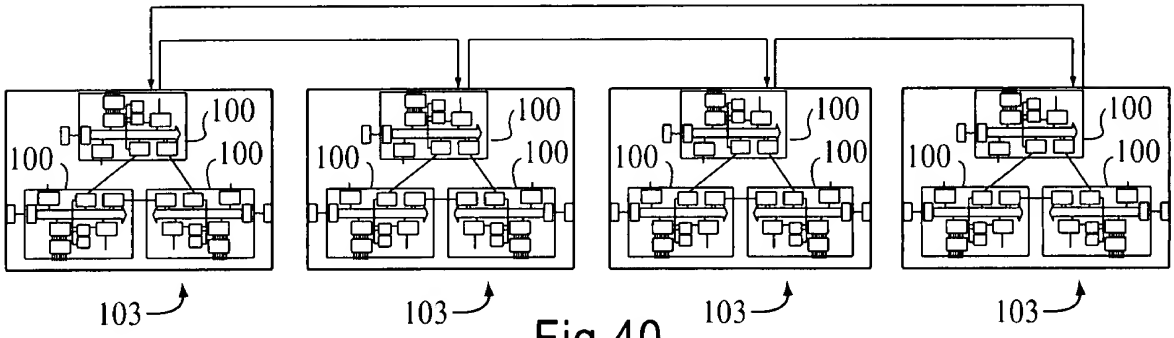

Fig.40

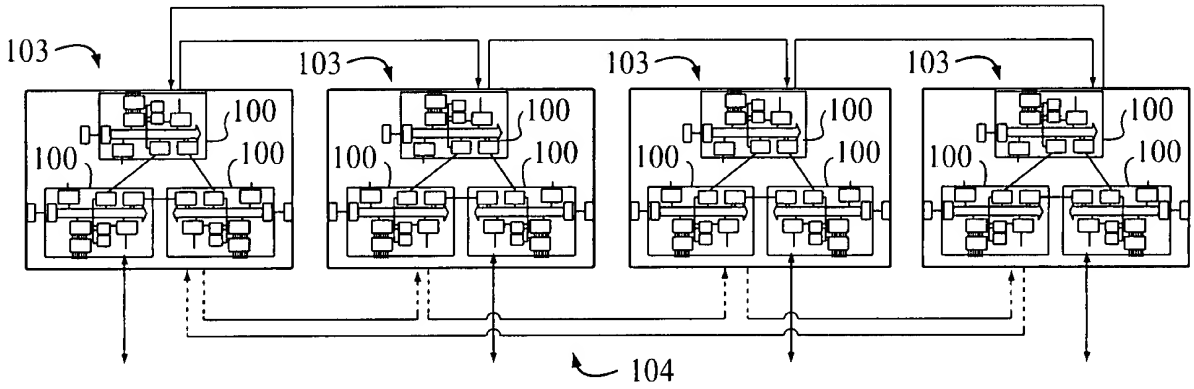

Fig.41

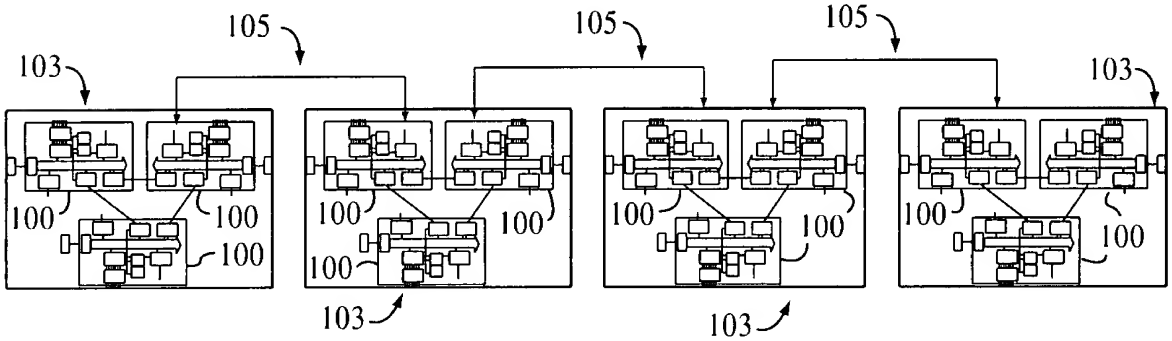

Fig.42

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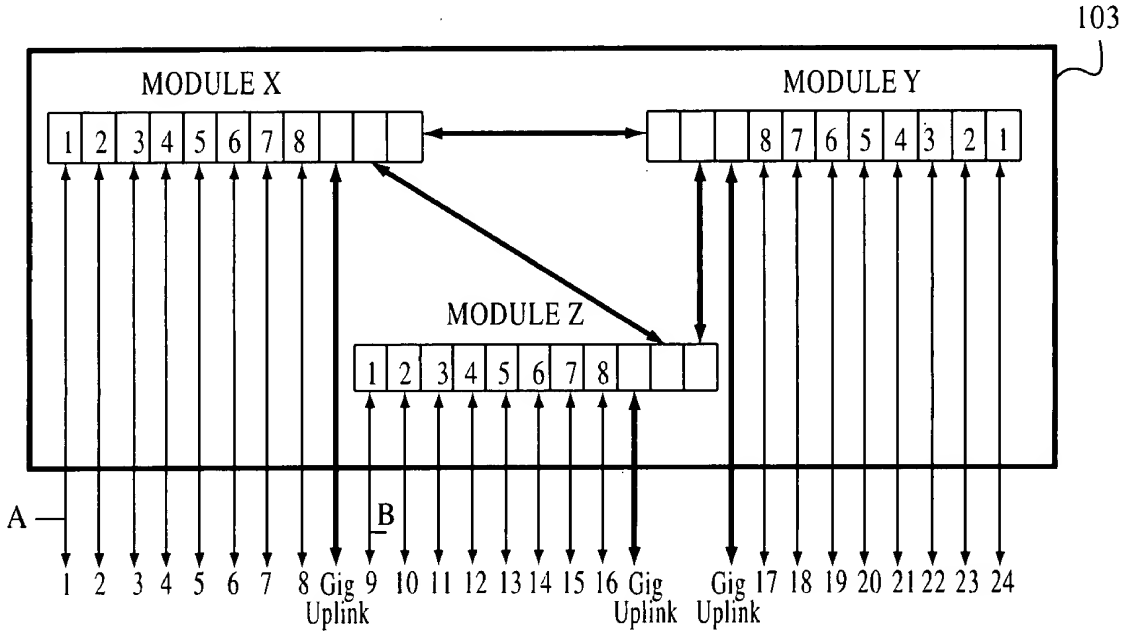

Fig.43

Table for Module X

Port Number	Mac Address	Vlan ID
1	A	1

TABLE A

Table for Module Y

Port Number	Mac Address	Vlan ID
G2	A	1

TABLE B

Table for Z

Port Number	Mac Address	Vlan ID
G2	A	1

TABLE C

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Port Number	Mac Address	Vlan ID
G2	A	1
9	B	1

TABLE A

Port Number	Mac Address	Vlan ID
1	A	1
G2	B	1

TABLE B

Fig.44

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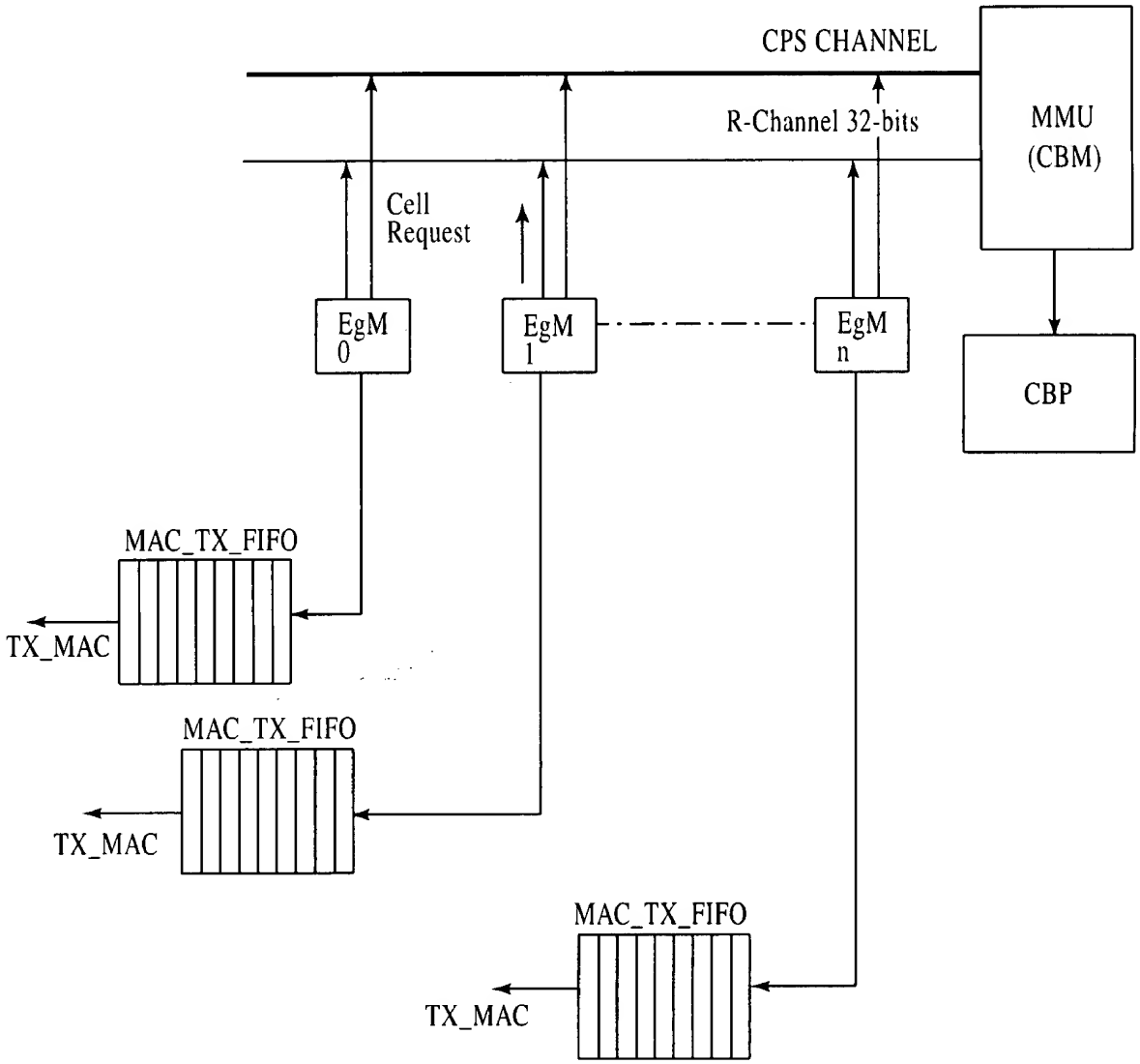

Fig.45